The New York Medical Times.

VOL. XII. NEW YORK, JUNE, 1884. No. 3.

ORIGINAL ARTICLES.

DIAGNOSIS OF ORGANIC DISEASES OF THE HEART; With Clinical Cases.

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PART I.

NOTHING is more common, in the experience of every physician in general practice, than to be consulted by patients who, from certain symptoms, have been lead to believe or suspect that they were suffering from "heart disease." In by far the greater majority of cases, whether the patient be physician or layman, these symptoms arise from derangements of other organs, perhaps far distant from the heart. The mere suspicion of the existence of organic disease of this organ renders the life of the sufferer miserable. Awake or asleep his mind dwells upon it—and too frequently he avoids a thorough examination from the fear that his worst suspicions will be confirmed, and that the last ray of hope will be taken from him. On the other hand, we occasionally meet with a hypochondriac who is confident of the existence of serious organic disease in his own case, and who will go from physician to physician dissatisfied with the assurance of soundness so far as that organ is concerned—apparently determined to be unhappy till he can be made miserable by the assurance that his suspicions are well founded. I remember one remarkable case of this kind in my own practice. A young man hailing from one of the most miasmatic sections of New Jersey, a high liver, a free drinker, of ample means, and lazy and indolent habits, consulted me, suffering from præcordial pain, palpitation, constipated bowels, cloudy urine, flatulency, distension of the stomach, with occasional "heart burn," a sore liver, enlarged spleen and restless nights.

After a careful examination, which it was hardly necessary to make, so palpable was the nature and cause of his difficulties, I assured him he was suffering from no heart trouble, and explained the nature of his ailment, and assured him that proper diet, proper exercise, the avoidance of stimulants, and a summer in the Adirondacks, would restore him to perfect health.

He listened with apparent interest, and then said, "That is what you doctors all say. I have consulted the most prominent specialists of New York, and they all give the same opinion. I have applied for policies in the best life insurance companies, and have undergone examinations by their medical men, merely that I might get their opinions as to my heart. They have all been willing to accept me. But, notwithstanding this, I am satisfied my heart is diseased." He left my office, evidently disgusted with my abilities as a diagnostician. I learned afterward that he was being treated by a notorious quack, who had pronounced all who had examined him fools, and who had assured him that his own diagnosis of his case was correct, that he was suffering from heart disease, which could, however, be cured in time.

This is an extreme case, but it has not been uncommon in my own experience to be unable to convince patients, and many of these physicians, that their fears which had been worrying them for years, were unfounded, when a searching examination had positively demonstrated the absence of organic changes in the heart or large arteries.

In the greater number of instances it is really by accident that organic disease of the heart, when it does exist, is discovered. The physician is consulted for dyspepsia, for frequently-recurring nose-bleeds, for a hæmoptysis, for a bronchial cough, for shortness of breath on exercise, for various head symptoms—a diseased heart not having been suspected. A careful physical examination brings to light a valvular trouble, which dates back to an attack of undiscovered endocarditis complicating a rheumatic fever, from which the patient suffered five, ten, perhaps twenty years ago. *Now* the heart is failing, and, although owing to its crippled condition his health has been somewhat impaired through all these years, he has rarely had occasion to consult a physician, and it is only recently that he has began to realize that he is an invalid. So true is this, that it is the recorded experience of many specialists, that when a patient complains primarily of heart symptoms the heart itself is nearly always free from organic disease.

After a review of the symptoms and conditions which lead to the mistaken conclusion in so many cases that organic disease of the heart exists, and an enumeration of the various forms of organic change, I shall lay down briefly the rules for guidance in examinations, and give those positive signs of organic disease, without which pathological changes in the

heart cannot exist, and cite a few cases in illustration.

"PAIN IN THE REGION OF THE HEART."

Although occasionally we meet with a person who is totally ignorant of the locality of the heart, the majority have a pretty accurate idea of its position, and pain in that region is to them an alarming symptom.

In thinking over the many cases of chronic organic disease of the heart which I have examined, and after a careful study of my case-book, I fail to call to mind more than a very few where this symptom has been present, and fewer still where it has been a marked feature of the case. Even in acute endocarditis uncomplicated by rheumatism involving the intercostal muscles, or by pericarditis, pain is rarely a symptom.

In pericarditis, until the exudation has become somewhat large in quantity, pain is nearly always present.

From a careful analysis of symptoms by distinguished observers, it has been found that pain in the exact region of the heart has been complained of in but about eight per cent. of the cases of established organic disease of that organ.

And yet pain in the "region of the heart" is an exceedingly common symptom.

We may, from various causes, generally reflex, have a neuritis of the cardiac plexus. Under such circumstances the suffering is intense, and gives rise to the worst fears on the part of the patient, and sometimes of the attending physician.

The pain arising from rheumatism of the muscles of the chest, and from neuralgia of the intercostal nerves, frequently gives rise to the liveliest fears on the part of the patient; and, too, there are certain pains associated with chronic catarrh of the stomach which, owing to the hypochondriac conditions so commonly associated with dyspepsia, are, to the minds of the sufferers, a most positive indication of organic disease of the heart.

The pain of angina pectoris, undoubtedly a cardiac pain, is not owing to disease of the heart, but is simply due to the mechanical effects of heart distention, for it is now conceded that angina pectoris is caused by irritation of the vaso-motor nerve-centres by which a condition of arteriole spasm is brought about, which interferes with the free emptying of the heart, thus overloading and distending it. It is true that angina pectoris is not seldom an accompaniment of organic disease of the heart, particularly of the aortic valves, and where there is atheroma of the coronary arteries; yet in the great majority of cases there are no evidences before or after death of any changes in the walls, the valves or the blood vessels of the heart.

Reflex pains in the region of the heart are not uncommon in women as a result of ovarian derangements.

PALPITATION OF THE HEART.

Palpitation is a most common symptom of organic changes, but then it is not of a violent nature, and is usually excited by physical exertion only; while the neurosal form, which is much more violent, arises as a symptom of disturbances elsewhere, and perhaps remote from the heart, and is not excited or increased by exertion. These are most valuable differential points.

We find palpitation of the heart a frequent symptom with masturbators, and with dyspeptics. It is common in chorea, in chlorosis, in spinal irritation; is frequently caused reflexly by a displaced uterus, by ovarian disturbances, by prostatic enlargements, and by constipation of the bowels. It is also a symptom of neurasthænia. This form of palpitation accompanies the condition described by DaCosta as "irritable heart," and will make its appearance while the patient is at rest, frequently waking him from sleep in the dead of the night. It is far more common among women than men.

INTERMISSION.

An occasional lost beat in the pulse is a peculiarly alarming symptom to many, particularly to medical men who consult the specialist in diseases of the heart—and yet nothing is more common, particularly in advanced life. One authority goes so far as to state that, without exception, all after the age of seventy-five have this peculiarity of pulse. This statement, however, is an exageration, for since I saw it in print I have frequently met very old men whose pulses were perfectly regular. Intermission is no evidence whatever of valvular disease—a lost beat at the wrist is not even a positive evidence of a lost heart beat—for there may be an occasional ventricular systole which is not forcible enough to make an impression on the radial artery that is perceptible to touch. Even if the beat is lost at the heart it is no positive evidence of structural derangement. In the absence of organic changes the phenomenon is difficult of explanation—it has been ascribed by some to cerebro-spinal irritation. In middle life I have frequently found it in the mentally over-worked, and have been able to cure the condition by enforced rest and recreation, with the avoidance of stimulants and a change of diet. It is, however, a symptom of heart failure, and where the condition is found a careful examinations hould be made, before a diagnosis is given.

IRREGULARITY OF THE HEART-BEAT AND PULSE.

Although this may exist without organic changes, it is strong evidence, even in the absence of a murmur, of disease of the mitral valve and of heart

failure, owing to degeneration of its muscular walls. When the condition is persistant an exceedingly guarded diagnosis and prognosis should be given.

DYSPNŒA.

Although a constant symptom of certain valvular troubles and of cardiac degeneration, dyspnœa is frequently the result of other causes—derangements of nervous system, pulmonary troubles, hepatic disturbances, Bright's disease, abdominal dropsy, tumors, &c. The dyspnœa of heart disease and that resulting from organic changes in organs which in their changed state encroach upon the breathing surfuce of the lungs, is always aggravated by exercise. Not so with the neurosal form—as in palpitation, this is a very important differential sign. This form of dyspnœa frequently comes on at night during sleep, and in the waking hours while at rest.

SYNCOPE.

Frequently recurring "fainting fits" to the minds of the laity are very conclusive evidence of "heart disease." Although these are frequently associated with organic heart changes, every physician knows how common they are, particularly among women of emotional temperament, where there are no indications whatever, aside from these, of cardiac difficulty.

CARDIAC MURMURS.

A murmur over the heart is looked upon by the majority of physicians as conclusive evidence of valvular disease, but even a murmur may exist unaccompanied by structural changes. How common is it to hear a murmur the origin of which is difficult to explain, over the pulmonary orifice as an accompaniment of anæmic conditions, particularly in chlorosis, which disappears with returning health and strength. Cardiac murmurs, too, are frequently heard at the apex, resulting from a temporarily relaxed condition of the papillary muscles, which permits a slight regurgitation at the mitral orifice during the systole of the ventricle.

Not long since a physician of our school was refused a policy in one of our prominent life insurance companies on account of a systolic murmur heard at the apex of the heart. He came to me, somewhat worried, for an examination. He was well nourished, apparently in perfect health, had never suffered from any of the diseases complicated by endocarditis; was not short of breath. I discovered the murmur, which however was only heard during inspiration; a most thorough examination demonstrated the total absence of all signs of dilatation or cardiac hypertrophy. I had no hesitancy in pronouncing him perfectly sound in every way, and gave him a certificate to that effect to the directors of the company, at the same time advising him to get the opinion of two of our most prominent diagnosticians of the old school. They both agreed with me that the murmur was inorganic and transient. On the strength of our combined opinions the doctor received his policy on appeal, notwithstanding the opinion of the examining physician that he was suffering from organic disease of the heart.

Even hypertrophy, uncomplicated by valvular changes, is not, properly speaking, a disease of the heart.

With all these conditions which simulate organic disease of the heart, naturally the important question arises, what are the positive evidences of organic disease of this organ?

In order that we may be enabled to decide in any case as to the existence of structural changes, we must of course have a thorough knowledge of the topographical anatomy of the anterior portion of the thorax; we must be familiar with the outline of the borders of the lungs; we must remember that they converge from the apices to the second costal cartilage, where they meet and run parallel to the fourth costal cartilage, the right continuing downwards in the median line to the sixth, the left diverging at the fourth costal cartilage at an angle to a point between the fifth and sixth ribs, a little within the left nipple line. The irregular triangle formed by the borders of the lungs and the diaphragm is the superficial area of cardiac dullness—that portion of the thorax where the heart, covered by the two layers of the pericardium comes in immediate contact with the chest wall.

We must remember that the apex of the heart in its normal position is always found in the fifth intercostal space, a little within the left nipple line.

We must remember that either the right ventricle or the left, or both, with the auricles, are always enlarged by valvular changes of any standing; that in enlargement of the left ventricle the heart is longer and more cone-shaped than in its natural condition, and that consequently the apex will be depressed and misplaced to the left, sometimes being found in the sixth interspace, sometimes in the seventh, and occasionally lower still; that the lower it is the farther to the left will it be found; that enlargement of the right ventricle displaces the apex to the left without materially depressing it; that this enlargement with dilatation of the right auricle which always accompanies it renders the heart broader, and increases the lateral area of superficial cardiac dullness to the right, and also to the left.

We must be familiar with the percussion sounds of health, as well as the auscultatory sounds of the lungs and heart.

We must be able to count and locate the ribs, which in fleshy persons is not always an easy matter, but by

bearing in mind the anatomical fact, that where the first bone of the sternum articulates with the second there is always a prominence extending across the bone, readily distinguishable in the most fleshy by palpation, and that this corresponds with the second costal cartilage, we will have no difficulty in locating any rib or intercostal space.

We must be familiar with the effects of the various valvular derangements on the heart chambers and walls. Thus we must bear in mind that diseases of the aortic valve, uncomplicated, affect the chamber and walls of the left ventricle only; that diseases of the mitral valve affect the chamber and walls of the left auricle, the right ventricle and the right auricle; that in insufficiency the walls of the left ventricle are also slightly dilated and hypertrophied, and the chamber correspondingly enlarged; that derangements of the pulmonary valves are rare, but should they exist uncomplicated, the chamber and walls of the right ventricle only would be affected; that derangement of the tricuspid valve and orifice, which is equally rare, unless secondary to pulmonary obstruction or mitral disease, dilates the right auricle.

It is also important to remember that in by far the greater number of cases, organic disease of the heart in early and middle life can be traced to valvular changes which have resulted from an endocardial inflammation. Now, as endocarditis is rarely idiopathic, in obtaining the history of the case it is important to inquire as to the previous existence of diseases or accidents which could have given rise to endocarditis. From the well-known fact that about twenty per cent. of all cases of inflammatory rheumatism are complicated by endocardial inflammation of the left side, it is well to satisfy oneself as to whether there is a history of rheumatism. If there is not, the fact alone is presumptive evidence of the absence of valvular changes. But endocarditis may arise from heart strain. Several remarkable cases of this kind have come under my own observation. In one, a man was suddenly and unexpectedly called upon to sustain a heavy weight. He felt something give way in his chest, was confined to the bed for weeks with endocarditis which produced permanent changes in the aortic, the mitral, and tricuspid valves. The conditions were diagnosed during life, and confirmed by a post-mortem examination some three years subsequent to the accident. In another instance a lad of twelve years endeavored to row a heavy boat some miles against a strong tide. The immediate result of the prolonged effort was an endocarditis, with subsequent mitral and aortic valvulitis, which have rendered him a cripple for life. In another instance, a young man brought about an endocardial inflammation from over-exertion in some athletic sport, which resulted in permanent constriction of the aortic orifice, with consequent hypertrophy of the left ventricle.

These illustrations show the importance of considering carefully the previous history of the patient in all cases of suspected heart disease.

We further must remember that endocarditis is sometimes a complication of Bright's disease, of chorea, of scarlet fever, of small-pox, of pneumonia, of pleurisy, and that in its ulcerative form it may be a complication of pyæmia.

It is also to be borne in mind that in other cases of organic disease of the heart, particularly when the valvular changes have developed late in life, the conditions are preceded by hypertrophy of the walls of the left ventricle, the enlargement being compensatory to diminution in the lumen of the arterioles throughout the body, these changes resulting from chronic lithæmia, arising from overeating, with sedentary habits, from alcoholism, or from hereditary gouty diathesis. In these cases the valves, from the prolonged strain, have developed in them a chronic inflammation with hyperplasia of fibrous tissue cells, the newly-formed tissue finally contracting and producing a deformity of the valve with constriction, or insufficiency, or both combined, as a result. In these cases the aortic valve is first involved, and generally later the mitral.

Having acquainted ourselves now with the etiology and pathological changes of organic diseases of the heart, we are in a position to inquire what are their positive signs, and I will consider these signs as they exist in acute pericarditis; acute endocarditis; hypertrophy of the left ventricle without valvular changes; aortic insufficiency; aortic stenosis; mitral insufficiency; mitral stenosis; tricuspid insufficiency; dilatation of the heart unaccompanied by valvular disease or endocardial inflammation; fatty degeneration of the heart walls.

ACUTE PERICARDITIS.

In the majority of cases this condition is a complication of inflammatory rheumatism. It is accompanied by pain in the præcordial region, dyspnœa, agitation of the heart, feeble pulse rendered suddenly rapid by slight exertion, friction murmurs accompanying both movements of the heart in the early stages, owing to the rubbing together of the roughened surfaces of the pericardium; later, a disappearance of the murmurs, as the exudation forms, with indistinctness of the heart sounds, and an increase of the area of heart dullness, first at the base, subsequently at the lower portion of the sac. If, with the signs noted, the dullness extends further to the left than the apex beat, the diagnosis of pericardial exudation is certain.

ACUTE ENDOCARDITIS.

This disease is usually a complication of inflammatory rheumatism, and unless auscultation of the heart is daily practiced the onset is not discovered. There is an absence of pain, and generally no symptoms which call the attention of the patient to his heart.

The first sign, on auscultation is a soft blowing murmur, accompanying or taking the place of the first sound of the heart, and heard with greatest intensity at the apex. The murmur is owing to a change in the edges of the mitral valve, or to a relaxed and infiltrated state of the papillary muscles, which permits a regurgitation of blood from the ventricle into the auricle during the systole of the ventricle. There is generally palpitation and the pulse is feeble and rapid, the skin pallid, and the patient suffers from dyspnœa on the slightest exertion, owing to the engorgement of the pulmonary capillaries. The temperature is not materially increased.

If, as is rarely the case, the aortic valve becomes implicated, there will be a constriction of the aortic orifice owing to infiltration, or possibly to vegetations on the ventricular surfaces of the segments. Under such circumstances a murmur will be produced systolic in time, heard with greatest intensity at the base, in the second intercostal space to the right of the sternum, and the murmur will be conveyed to the carotids. Later, when the mitral orifice and valve are involved, there will be evidences of dilatation of the right side of the heart. If the aortic orifice and valve are alone involved the left ventricle will be dilated. If both the mitral and aortic are involved at the same time, there will be a general dilatation of the heart, although the auricles and the right ventricle will suffer the most, as the mitral lesion to a certain extent compensates the aortic constriction, preventing the distention of the left ventricle.

HYPERTROPHY OF THE LEFT VENTRICLE WITHOUT VALVULAR CHANGES.

This condition is common as a result of obstruction to the blood flow in the aorta or in the arteries of the systemic circulation from long-continued muscular exertion, from aneurism of the aorta, from the pressure of tumors on the aorta or some of the large blood vessels, from atheroma of the walls of the arteries, and from diminished calibre of the systemic arterioles owing to fibrous thickening of their walls, resulting from lithæmia of long standing. Hypertrophy, as before stated, cannot be looked upon as a disease, for in every instance it is compensatory, the thickening of the walls being nature's method of supplying additional force, that obstacles may be overcome and that a proper quantity of blood may be sent. It is only when fibrous or fatty degeneration takes place in the thickened walls that a disease process is established, so far as the heart is concerned.

Hypertrophy of the left ventricle lengthens the heart, depresses the apex. It does not materially increase laterally the area of cardiac dullness. The diagnosis, consequently, hinges mainly on the location of the apex.

Of course there will be an absence of murmurs, but the first sound at the apex will be louder, and the second sound at the right of the sternum in the second intercostal space will be intensified, owing to the greater recoil of blood against the semilunar valves. There will also be a louder systolic sound in the large arteries. There will generally, particularly after exertion, be a visible impulse over the entire cardiac region, which impulse is of course sensible to palpation.

AORTIC INSUFFICIENCY.

Here the semilunar valves at the aortic orifice are incompetent. The recoil blood which should be arrested at this point on the diastole of the heart, rushes through the unclosed orifice into the ventricle. The result is great dilatation with subsequent thickening of the walls of the left ventricle, and a condition of eccentric hypertrophy of the left ventricle is established.

The ultimate result of this condition of the ventricle is to distend and dilate the arteries; frequently atheroma is developed in different vessels, and an irregular dilatation of their walls takes place; particularly is this common at the begining of the aorta and at the arch. Inexperienced diagnosticans are apt to overlook the real difficulty on discovering the aneurism, and to consider the latter the primary affection. I have seen aneurismal dilatations in every portion of the body as a result of the enormous hypertrophy arising from aortic insufficiency. Pulsations of the carotids, of the innominata, of the temporal and of the brachial arteries are visible to inspection, and the impulse is of course readily felt.

The signs of hypertrophy of the left ventricle are prominent.

A diastolic murmur exists, which is heard with greatest intensity at the base of the heart, in the second intercostal space to the right of the sternum.

The first arterial sound which ordinarily is heard only in the larger arteries, is now heard in the brachial, sometimes in the radial, the tibial, and I have even distinctly heard it through the stethescope in the temporal artery, which is prominent and tortuous. If the insufficiency is great the second arterial sound in the large arteries is not heard.

So long as the compensation lasts in the walls of the left ventricle the patient is *not short of breath* on exertion, is generally in a state of exhilaration, has occasional sparks before the eyes, and tinnitus

aurium from excessive blood supply to the brain. The skin is of a good color and the patient has the appearance of robust health.

AORTIC STENOSIS.

Constriction of the aortic orifice is probably the most serious cardiac lesion with which we have to contend. The deformity is in some instances so great that a knitting needle will barely pass through the constricted orifice.

The result is evident. Dilatation of the left ventricle, with a poor blood supply to the systemic circulation and overloading of the veins and the pulmonary vessels, till compensating hypertrophy of the walls of the ventricle takes place. This hypertrophy in the majority of instances soon becomes complete, and the patient may live in comparative comfort for years. Under such circumstances there is usually no shortness of breath on exertion. The color is moderately good, there will be evidences of hypertrophy of the left ventricle only, the apex being misplaced downward and slightly to the left. The lateral area of superficial cardiac dullness will not be increased. There will be a murmur with the first sound of the heart, heard with greatest intensity at the base and conveyed to the carotids. The pulse will be feeble, in no way corresponding to the powerful heart impulse, but so long as the heart walls remain healthy there will be no irregularity. Frequently we can feel on palpation a systolic thrill over the aorta.

MITRAL INSUFFICIENCY.

In this condition the valves being incompetent to close the auricular ventricular orifice during systole, a portion of the blood which should enter the aorta rushes back into the auricle, distending and dilating it. As a result of this distention the pulmonary veins and capillaries are overloaded, interfering with the free expansion of the lungs, and materially lessening their capacity for air. There is an obstruction to the pulmonary blood current, consequently the right heart cannot empty itself, and it becomes dilated, the veins throughout the entire system become overloaded, and we have a venous engorgement of every organ in the body, with disturbance of their functions. Fortunately, compensating hypertrophy of the walls of the right ventricle is soon established, and the distention of the systemic veins subsides, as well as the engorgement of the various organs. The right ventricle is now able to empty itself, but owing to the obstruction at the mitral orifice the lungs are *always* more than normally supplied with blood. The result is *always dyspnœa on exertion*, owing to the encroachment on the air vesicles.

The vital capacity of the lungs is *always* below normal in mitral insufficiency. Here the spirometer is of service in the diagnosis of disease of the heart. If upon its use we find the chest capacity normal in a suspected case of heart disease we can safely exclude mitral insufficiency.

The physical signs then are shortness of breath on exertion, an increase in the lateral area of superficial cardiac dullness, owing to the eccentric hypertrophy of the right ventricle and to the dilatation of the right auricle. Irregularity in the action of the heart, and a systolic murmur, heard with greatest intensity at the apex, and conveyed to the left and generally heard through the lung at the angle of the left scapula posteriorly.

This murmur is not constant in every instance, but can generally be developed when absent by a little exertion on the part of the patient.

The apex is misplaced to the left, but is not as in aortic disease depressed. Some authorities contend that in mitral insufficiency the left ventricle is slightly dilated, owing to forcible flow of blood into the ventricle during diastole from the distended auricle above. Subsequent hypertrophy would of course result, but it is rarely of any amount.

MITRAL STENOSIS.

It is rare that constriction of the mitral orifice exists without a certain amount of incompetency of the valves. Often the cusps of the valve are adherent, and it will have the appearance of a diaphragm stretched across the orifice with a narrow slit in its centre (button-hole mitral), no longer acting as a valve. We will have the same obstruction to the blood current, and the same overloading of the auricle and of the pulmonary vessels, and the same condition of the right heart, of the veins, and the same venous engorgement of the various organs of the body as in mitral insufficiency, and the same subsequent hypertrophy of the right ventricle. The physical signs, so far as percussion is concerned, are the same, but the apex is generally a little higher, from the fact that the left ventricle is not affected in mitral stenosis.

Palpation generally reveals a thrill at the apex immediately preceding the impulse of the heart.

In this condition we have a long præsystolic murmur, produced by the passage of blood through the constricted orifice, immediately followed by the first sound, which is generally a sharp click, and often mistaken for the second sound intensified. This click, of course, accompanies the cardiac impulse. The murmur is confined to the immediate neighborhood of the apex, and it is not, as is the murmur of insufficiency, conveyed to the left and to the back; neither is it, as is the murmur of aortic stenosis, conveyed to the carotids.

TRICUSPID INSUFFICIENCY.

This condition is common in dilatation of the right ventricle, but is exceedingly rare as a result of disease

of the valves, although I have cited one instance where evidences of inflammation were found post-mortem.

The ventricle becomes dilated to such an extent that the valve is insufficient to close the orifice, and regurgitation takes place during systole of the heart.

Under such circumstances we have enormous dilatation of the right auricle, with distention and dilation of all the veins of the body.

There is usually a pulsation of the jugulars, which can be arrested by compressing them above and allowing the blood below the point of pressure to escape into the auricle. In this way we distinguish between pulsation of the jugular veins and pulsation of the carotids, the currents being in opposite directions. Compression in the one case will arrest the pulsation, while in the other it will not. There will sometimes be a pulsation felt distinctly over the liver, owing, as in the other case, to the return current coming in contact with the column of blood in the auricle, the impression being conveyed backward to the blood in the venæ cavæ, and thence to the liver.

A systolic blowing murmur will be heard at the lower portion of the sternum.

It is exceedingly rare that stenosis of the tricuspid orifice exists. Should it be, there would be a presystolic murmur heard at the lower portion of the sternum, but there would be no pulsation of the jugulars or liver, without considerable regurgitation.

DILATATION OF THE HEART UNACCOMPANIED BY VALVULAR DISEASE, PERICARDIAL OR ENDOCARDIAL INFLAMMATION.

Two cases have been cited in this article which have come under the writer's observation, where violent endocardial inflammation has been excited by excessive physical exertion. In one the strain was of but short duration, but very great. In the other, the effort was prolonged. Although so severe a result of physical strain is rare, over-distension of the heart chambers with stretching of its muscular fibres, from the same cause, is exceedingly common. The condition is easy of explanation. Muscular contraction compresses the arterioles and capillaries, an impediment is thus established to the free emptying of the left ventricle and it dilates during diastole. If there is obstruction here the auricle above is distended, the pulmonary vessels overloaded, and the air vesicles dimnished in size, owing to the pulmonary engorgement. There is but little resistance to the emptying of the right ventricle till a condition of great engorgement of the lungs is reached, then the right ventricle partially fails in its systole, and blood which should have been sent into the pulmonary artery during ventricular contraction remains, and the ventricle in its relaxed state is so distended by the contraction of the auricle above that its muscular fibres become stretched, and a condition of dilatation is established here also, followed of course by distension and dilatation of the auricle, with overloading of the veins throughout the entire body from obstructed blood current. The natural result is, of course, venous engorgement, with deranged function of every organ; later, unless the heart is relieved, the serum of the blood percolates the walls of the vessels and a dropsical condition is established, which always, in cardiac obstruction, commences in the feet and ankles. Fortunately, in by far the greater majority of cases this extreme condition is not reached, the dilatation is either relieved by rest and treatment, or if it be permanent and the nutrition be good, hypertrophy of the heart walls takes place through the development of new muscular fibres, and the dilatation is compensated by the extra power imparted.

The right heart alone may be dilated by efforts which obstruct the blood current through the lungs, as well as by disease conditions which impede the blood flow, as pneumonia involving a large portion of the lung, compression of the lung from extensive pleuritic exudation, pulmonary emphysema, and bronchitis characterized by violent and protracted fits of coughing.

The symptoms would be great dyspnœa and palpitation of the heart on the least exertion, feeble and irregular pulse, increase in the area of cardiac dullness; the rhythm would be disturbed, and the heart sounds on auscultation would be feeble, the first sound changed in character, becoming valvular in tone, and the second sound would not be heard at the apex.

FATTY DEGENERATION OF THE HEART.

A distinction must be made between fatty degeneration and fatty deposit. The latter, which consists of a growth of fat on the heart and between the muscular fibres, is common to obesity. The accumulation hampers the action of the heart, and is one of the causes of palpitation and shortness of breath on exertion in those suffering from an over-accumulation of fat.

There are no positive physical signs of this condition, for the thickness of the thoracic walls renders the signs from percussion and auscultation decidedly unreliable.

Fatty degeneration is actual degenerative change in the muscular tissue of the heart itself, and does not necessitate an extra accumulation of fat in any portion of the body. It is even more common with the spare than with the obese. This fatty change in the muscular fibre is finally the cause of death in the majority of cases of hypertrophy as a result of valvular disease, or other obstructive conditions. It is superinduced, too, in aortic insufficiency by the poor blood supply to the heart walls, owing to the backflow

past the sinuses of Valsalva, for the circulation through and the filling of the coronary arteries are owing to the recoil of blood against the semilunar valves at the aortic orifice, and the forcible eddying in the sinuses. We have the condition however as a portion of a general fatty degenerative process thoroughout the whole body, and rarely, if ever, is the heart alone involved. There is generally atheroma of the walls of the arteries with fatty degeneration of the muscular tissue of the nerve and other tissues throughout the body.

The condition may properly be called "fatty disease." Progressive pernicious anæmia would be a fair example of the most acute and aggravated form of this disease; but in the chronic form it is common as a result of alcoholism, or where from any cause the nutrition is seriously impaired, and all are familiar with the fatty changes in the heart and elsewhere resulting from a severe attack of typhoid fever. A year is generally allowed after recovery from typhoid for perfect restoration of all the mental and physical powers.

Given then the pathological changes, the conditions resulting would be evident. A degenerative change has taken place, and a portion of the muscular fibres of the heart are converted into fat—are actually necrosed.

The organ is incompetent to perform its functions, the arteries throughout the body are poorly supplied with blood, owing to the imperfect systole of the ventricle; the skin is pallid, for it is the blood which imparts the color of health to the skin; the veins are overloaded, for the vis a tergo is not sufficient to force the blood through them, and a condition of venous engorgement is set up in every organ of the body, producing functional disturbances everywhere; the pulmonary vessels are overloaded, for the right heart can distend these with comparative ease, owing to their great size and trifling amount of resistance; the air vesicles are compressed, resulting in shortness of breath; the brain suffers with other organs from deficient arterial blood supply and partial venous blood stasis, an infiltrated condition results, its function is seriously impaired, evidenced by various psychical phenomena, and in some cases attacks of pseudo-apoplexy. There will be great muscular weakness, and diminished secretion of urine, which in the latter stages is albuminous. The physical signs are by no means positive or constant.

Fatty degeneration of the heart being such a frequent accompaniment of atheroma of the arteries, the presence of tortuous temporal arteries would be an important sign in connection with other indications of the existance of fatty heart. Arcus senilis of the fatty character (not the calcareous so common in gouty subjects) is also a common and important sign.

The action of the heart is feeble, and its impulse is not felt on palpation, neither is it visible on inspection.

The signs of percussion are of little value, for the heart may be of normal size, or it may be hypertrophied, or it may be atrophied.

On auscultation the first sound is far more feeble than normal, and is valvular in tone; it has lost its muscular element. The second sound is feeble, and the first silence is prolonged. The rhythm is materially disturbed, particularly during exertion, the heart's action being characterized by intermissions only, or by decided irregularity. The pulse corresponds with the cardiac impulse, although frequently more characterized by lost beats, for many of the heart beats may be too feeble to make an impression on the radial artery. In some cases the action of the heart is slower than normal, in others it is accelerated.

Palpitation is not so characteristic of fatty degeneration as of dilatation, the heart in reality being too weak to palpitate, owing to actual necrosis of many of its fibres.

Finally, no doubt need exist as to the diagnosis of fatty disease of the heart if, in addition to the above conditions and signs, we have the so-called Cheyne-Stokes respiration. This is characterized by "a series of inspirations increasing to a maximum, and then declining in force and length until a state of apnœa is established. In this condition the patient may remain for such a length of time as to make his attendants believe he is dead, when a low inspiration, followed by one more decided, marks the commencement of a new ascending and descending series of inspiration."

No one, two or three of the above indications are positive evidence of this disease, but a combination of many of them would be evidence sufficient to banish a reasonable doubt of its existence.

ON HABITUAL CONSTIPATION.

By S. J. DONALDSON, M.D., NEW YORK.

PART III.

PHILOSOPHY OF DIET.

WE now come to the discussion of dietetics, as applied to the treatment of costiveness. It is generally understood that certain articles of food favor laxness of the bowels more than others, but this knowledge is far from being definitely formulated. As, for instance, oatmeal is often erroneously accredited with promoting intestinal peristalsis, and therefore its use is frequently followed by discouragement. Again, chicken is popularly regarded as a desirable delicacy and an appropriate article for a weakened stomach, whereas it is by no means easily digested. Furthermore, gruels and puddings of farinaceous substances

are constantly prescribed by physicians as well as the laity, as articles of diet peculiarly easy of assimilation; but we have already remarked that all starchy foods should be subjected to thorough admixture with the salivary fluid before they can be reduced to the assimilative condition, therefore, when swallowed hastily, as they ordinarily are when ingested in the semi-fluid form, they often act as positive irritants. The scope of this paper will not admit of a comprehensive notice of the manifold dietetic features directly related to our subject, therefore, without entering into detail, we will only attempt a few leading suggestions.

In the first place, those afflicted with indigestion, or its frequent associate, constipation, must resolve in good faith to abjure gratification of the palate; for, without peradventure, intestinal disorders, like the majority of physical ills, are self-imposed.

It is useless to attempt the cure of constipation dependent upon a diseased state of the rectum, consequent upon a liver deranged from brandy-drinking or other intemperance, unless we deal directly with the *fons et origo* of the difficulty. The same rule applies to errors in food. It is simply absurd to institute a one-sided medicinal regimen, and yet overlook faulty dietetic habits, such as indulgence in pastry, spices, and other harmful articles. Rectification of these evils is much more the duty of the physician than the concocting of some wretched medicinal deobstruent.

Nor are the benefits accruing from sound digestion of a purely local nature, for, as previously stated, mental perversion underlies the most intractable form of intestinal inertia; and since indigestion is a chief source of despondency, it will readily be perceived that the advantages secured can be reflex as well as direct.

Let us notice the relative merits of the ordinary cereals as laxatives. First on the list we find *rye* the most effectual, albeit a mush made of this meal is not appetizing in appearance, but nevertheless is quite palatable when thoroughly and properly cooked, and when eaten with treacle yields very satisfactory results. Hasty-pudding, made from coarsely-ground *maize*, stands next in importance. *Wheaten grits* ranks third, but it has the advantage of being more generally acceptable to the palate and sight, therefore it will be more popular. Finally we have *barley* and *oatmeal*, which are easy of assimilation but very slightly laxative.

Again we reiterate the necessity of impressing upon patients the importance of subjecting these soft preparations to thorough mastication, otherwise they are likely to undergo fermentation within an enfeebled stomach, causing acidity and flatulency. Bread made from any of these cereals, and eaten when stale, is preferable to any boiled admixture, since lack of moisture necessitates more thorough mastication. We may drop a word *en passant* concerning that favorite abomination, toast, which, as any one at all observant should know, has a strong tendency to ferment and cause acidity, from the fact that the ultimate starch granules are rendered hard and insoluble by the searing process to which they have been subjected. The nutritive properties of all food, whether animal or vegetable, are greatly impaired by frying, and this method of cooking cannot be too forcibly denounced. In the list of commendable edibles will be found boiled beets, onions and squash, baked potatoes and apples, raw peaches, and the various native berries, especially the blue or whortleberry. From this list we expunge turnips, cabbage, cauliflower, cucumbers, carrots, cherries, quinces, etc.

We will mention the albuminous food constituents in the ratio of their nutritive and assimilative properties, beginning with the most assimilable: Venison, beef, mutton, turkey, fish, chicken, pork, and veal. It is generally known that raw fresh meat is more readily converted into peptone than cooked, for the simple reason that cooking coagulates the albuminoid constituents, rendering them to a degree insoluble. Corned beef, and all other meats similarly pickled, are very indigestible, the chemical action of the brine rendering the ultimate fibrillæ and cell structure hard and insoluble. The division of meat into minute particles before ingestion greatly facilitates its rapid and complete transformation into peptone. In passing from this part of our subject, it may be well to briefly recapitulate our therapeutic views.

First. It is very essential that an accurate differentiation be made between emotional and actual physical influences, as an oversight in this particular will surely result unfavorably. To this end we closely analyze the temperament and mental condition of the patient, together with the history of the case.

Second. Every form of cathartic, whether mild or drastic, must be *absolutely* discarded, since by their use all other aids are rendered nugatory.

Third. The intestinal process should be clearly explained, and the prevalent custom of exerting forcible expressment discouraged.

Fourth. The philosophy of out-door exercise, as related to the physical well-being in general, and the promotion of the intestinal function in particular, should be properly elucidated.

Fifth. The advantages accruing from the employment of the cold bath, and the proper method of its application, must be taught.

Sixth. The patient, as far as possible, should be made to understand the supremacy of will-power, with especial reference to the formation of habit.

Seventh. Particular stress is next laid upon the

possibility and importance of establishing a daily habit, which may be accomplished by the concentration of the thoughts, at a certain hour daily, for the securing of an evacuation. This deliberate and persistent exercise of the will seldom fails to arouse the desired inclination.

Eighth. The efficiency of water as a solvent, the proper time for taking it, and the superiority of warm over cold as a remedial agent, should be clearly set forth, that patients may avail themseves of these advantages. Dietary rules that are in accordance with and sustained by physiological laws should be enforced, and all information that can be gained from personal experience respected.

Our subject would be incomplete were we to omit all reference to the costiveness of childhood and old age. In the foregoing pages we have already shown that constipation of infancy is usually the result of neglect, or mischievous interference on the part of those having the supervision of the little ones. Our first duty, plainly, is to eradicate the source of the difficulty, a task not readily accomplished, for we have to encounter a stubborn persistence in erroneous customs, beside a disinclination to any added labor on the part of parents or nurses. The mother has not always the mental fortitude to deprive herself of certain articles of food, even though secondarily they may irritate her nursling, and it is so natural to nurse the infant whenever it cries. Moreover, it is so easy to administer a dose of *castor oil, rhubarb,* or other laxative, and what is more reprehensible still, to the over-weary nurse it is a great temptation to give a few drops of "soothing syrup," especially when warranted (as they all are) to be entirely free from opiates. It is not desirable to attempt *in extenso,* a detailed enumeration of the evils to which infants are subjected. They are commonly the victims of blind ignorance and of obdurate continuance in harmful practices, which are too often overlooked if not actually advocated by the medical adviser. Constipation in childhood, as in maturity, is not unfrequently but an expression of hepatic or intestinal engorgement, dependent upon indigestion that is the consequence of over-feeding or other dietary irregularities.

In the first place, we must impress upon parents and nurses the importance of an absolute discontinuance of the use of every form of medicament that is not positively demanded; and it must be forced home to the minds of those having the care of young children that *castor oil, rhubarb,* and other favorite laxatives, are highly injurious, only admissible when an habitual disposition to morbid laxity of the bowels is to be corrected. Unless imperatively demanded by illness, a nursing child should be fed *regularly,* never oftener than once in three hours, and not at all between the hours of ten at night and six in the morning. The prevalent custom of nursing infants during the night is injurious to the well being of the child, and an unnecessary, self-imposed affliction to the mother. A period of absolute rest is as essential to the health of the infantile digestive organs as to those of the adult, and unless this law is respected a diseased condition ensues, the child becomes wakeful, petulant, unmanageable, and develops a train of unfortunate symptoms, sometimes with constipation and again with diarrhœas. With proper nursing, inertia of the bowel will seldom develop; but should it appear, consequent upon some oversight or mismanagement on the part of the mother, an occasional massage of the abdomen with the hand, and a careful regulation of the mother's diet, will soon restore the normal function. When, through some misfortune, an infant is deprived of its natural food, and an artificial one is necessarily substituted, it should first be fed with a spoon, and then taught to drink from a cup as soon as possible. That abominable device, the nursing bottle, should never be tolerated, no matter what its form, or how urgent the plea for its use. It is an unclean invention, which naturally finds favor in the eyes of the indolent, and is answerable for the destruction of many thousands of young lives annually. An infant can be taught to feed from a spoon as readily as to nurse a bottle, and when fed in this way will receive only that which is actually required, but when the bottle is employed, as long as the nipple is retained in the mouth the child will suck automatically, thereby repeatedly overloading the stomach. Furthermore, when the bottle is the medium for food, nurses generally form a most pernicious habit of resorting to it to soothe all childish griefs and disquietudes, so that a morbid affection for it is engendered, and, waking or sleeping, it is a constant companion. How often do we see infants involuntarily sucking sour, vitiated air from an empty bottle, the nurse wholly regardless of the baleful circumstance. No language can too strongly condemn this infanticidal custom. Viewed from a physiological standpoint, it is no wonder that sixty per cent. of all deaths occur in childhood. We repeat, that infants artificially nourished should be fed regularly from a spoon or cup, never to repletion, and never during the night.

Should the bowels be ordinarily somewhat confined, it is no cause for alarm, quite the reverse, for it announces an inherent vigor; however, if the hardened fæces give rise to positive discomfort, a little treacle or barley gruel may be added to the milk, as these, assisted by cold sponging and shampooing of the abdomen, will, as a rule, provide against simple everyday contingencies. It is also incumbent upon the nurse or mother to institute in children regular periods for the evacuation of the excreta. It is won-

derful at how early an age the power of forming habits can be developed; therefore, by proper attention, and such judicious management as will readily suggest itself to an intelligent person, the infant of a few months can be accustomed to evacuate the bowels at certain stated times.

The treatment of costiveness in the aged presents peculiar and often obstinate characteristics. Advanced age is usually associated with a corresponding diminution of vital energies, which is expressed by enfeeblement of the muscular system, and the more sluggish performance of the general functions.

It is but natural to infer that, with the senile waste of substance and strength of the limbs, there occurs a coincident degeneration of the intestinal tonicity, and accordingly we are disposed to concede that constipation may be an unavoidable affliction of the aged. Nevertheless, occasionally there are found individuals who have passed through their four score years, and who yet experience no inconvenience from intestinal inertia. In these cases we invariably learn that regularity in this respect has always been maintained without extraneous aid, while, on the other hand, we seldom find elderly people seriously afflicted with costiveness who have not previously resorted in a greater or less degree to artificial means, and to the habitual exercise of diaphragmatic expressment. Therefore it is difficult to decide to what extent the anomaly is physiological, or how much is due to life-long indiscretions. Be that as it may, we will find that, as the buoyancy of the animal economy depreciates, there is encountered a corresponding difficulty in arousing and maintaining the intestinal function, and in many instances artificial aids may be imperatively demanded. Still, even here, all active interference should be a *dernier ressort*, for it must be remembered that purgation is especially objectionable to the aged, as it still further depresses the declining powers, and the secondary ill effects are deeper seated and more persistent than in earlier life.

For this reason it is imperative that all active catharsis or rectal enemata be deferred until all those practical hygienic regulations heretofore discussed, such as cold sponging and massage of the abdomen, fruit and coarse food dietetics, etc., have been thoroughly tested. Exercise may not always be possible on account of wasted limbs and failing strength, but it should always be encouraged when practicable. Beside the employment of hygienic measure, there is one agent which I have always found a sovereign remedy for the relief of these cases, and is equally efficacious in all forms of constipation; this is *fresh buttermilk*, taken at discretion. Beside the gentle solvent effect exerted, it is a valuable nutrient and easy of assimilation.

Finally, we have to consider the internal medicaments which will only be indicated by the symptoms evinced in each individual case. There is a host of these remedies commended in the various materia medicas, but I have found comparatively few worthy of the praise accorded them. When costiveness is directly engrafted upon a constitutional dyscrasy, exhibiting well-defined symptoms, we will usually obtain happy results from the administration of the appropriate remedy; we must, however, guard against the shortsighted policy of relying too implicitly upon the efficacy of drugs, but strive to combine with our therapeutics common sense practicalities.

ALOES

Is very extensively employed by the representatives of the heroic school for all forms of intestinal inertia. It is doubtful if the action of any other drug is so completely misapprehended, or its use so greatly abused. When administered in large doses, it is certainly a very efficient cathartic, and in smaller doses its primary action is likewise that of a laxative, but its secondary or ultimate effect is directly opposite to the one sought, and this undesirable condition is deep-seated, persistent, and often very troublesome. Since the use of this drug is quite general, it may be well to study its action in order to illustrate the principle —the duality of drug action—upon which we base our method of drug selection and administration.

A massive dose of *aloes* induces hepatic engorgement, abdominal plethora, consequent upon obstruction of the portal circulation, with congestion and varices of the rectum. The inordinate excitation of the viscera stimulates their functional activity, hence we have a hyperexcretion of bile and intestinal juices, resulting in purgation. When the medication is limited to one application, a corresponding reaction follows, this secondary state being diametrically opposite to the primary in all its features. If, however, the prescription is persistently repeated and increased, the reactionary powers are perverted, and we may have an abiding textural change wrought in those organs upon which the action of the drug is expended. It is evident that, in strict accordance with the law of similars, *aloes* is not often available for the relief of constipation, but is more frequently called for in the treatment of diarrhœas exhibiting its pathogenic symptoms. When, however, associated with constipation, we have morbid structural conditions resembling those that are consequent upon the inordinate use of *aloes*, we will witness brilliant curative effects follow its administration in small doses. The symptoms calling for this remedy are: Obstinate constipation following diarrhœas, with urging to stool; hemorrhoids resembling clusters of grapes; a sensation of burning soreness; itching, and dragging weight in the fundament; a bearing-down pain

which compels straining, followed by discharge of blood or lumps of jelly-like mucous, leaving an aching, and a sensation as though the sphincter ani had not contracted ; a twisting, griping pain around the umbilicus, and deep soreness in the hypogastrium ; stomach distended with flatus and tender upon pressure ; stitching, burning pains in the region of the loins—often indicated in the treatment of the phlegmatic and indolent, those who are subject to abdominal plethora.

ALUMINA.

The chief indication for this remedy is a condition of *semi-paralysis* of the rectum and bladder. The inclination to evacuate may be experienced, but the power to expel the accumulation is deficient, hence a large conglomeration of indurated fæces forms in the rectal ampulla. The abdominal walls also share in this feeling of weakness, and are often pendulous. Tensive or dull headache is a usual concomitant, and the patient evinces a nervousness and apprehension that the effort will be unsuccessful. It is often indicated in the debilitated and aged ; suitable also to young children.

AURUM MURIATICUM.

In the treatment of costiveness we will frequently encounter great mental depression ; weariness of life, with suicidal thoughts ; loss of memory, with great fatigue attending any mental effort, also a dread of impending loss of reason. For the relief of these symptoms *aurum* is a sovereign remedy. It is also valuable as a remedy for those mental conditions following disappointment, religious excitement, grief, etc., which tend to a state of helplessness, despair and melancholy.

The head aches, feels sore, with nocturnal boring pains in the skull. It is an admirable remedy for ill effects following the abuse of mercury, and is especially useful where there is a syphilitic taint. The stools are hard, dry and nodular, with rectal catarrh.

BELLADONNA.

Some old school authorities extol this remedy in the treatment of costiveness, maintaining that its virtue lies in the relaxing effect it exercises upon the sphincters. The new school also recognizes its remedial qualities, but holds that its curative action is explained in a different and more scientific manner. We may not here enter into a discussion of this matter, but simply state that *belladonna* may be prescribed with advantage when the following symptoms are present : A "broken back" feeling, with a constricted, itching, pressing-out sensation in the anus ; the mucous membrane is injected, swollen and everted ; there is a feeling as though all the parts would extrude, were straining exerted. There is often associated throbbing painfulness and tenderness over the abdomen ; pressure or jars aggravate the soreness ; the colon is sometimes visibly distended and is sore to the touch ; the pulse is full, bounding and tense, and throbbing is felt throughout the body ; the patient feels chilly internally and hot externally, yet is *averse to uncovering ;* head and face congested, eyes injected ; pains appear and disappear suddenly. This remedy is suited to the young, full-blooded, or plethoric constitutions subject to congestions, with high temperature and delirium when sick. It is more frequently called for in recent cases of costiveness when associated with acute complications.

BRYONIA.

This remedy is especially adapted to the constipation which is engrafted upon a *rheumatic diathesis*, and exacerbates in warm weather. It is further indicated when the patient is irritable, passionate and morose ; subject to headache *early in the morning, when first opening the eyes ;* disordered stomach, tongue coated, and an insipid, sweet, musty taste, with a collection of frothy saliva ; stitching, cutting pains in the abdomen and different parts of the body when first moving. The *fæces are very hard and dry, as if burnt.*

FERRUM PHOS.

Is indicated by the following symptoms : Obstinate constipation with prolapsus ani, and piles, associated with the following constitutional expressions: anæmia; face ashy pale or greenish tint, but flushes readily with sudden emotion or pain ; lips, ears and extremities blanched ; feet and hands cold ; vertigo on suddenly rising from a horizontal position or from stooping ; palpitation frequent ; persistent chilliness ; flatulence and fulness of the epigastrium ; *aversion to meat diet.*

GRAPHITES.

Cases of costiveness are repeatedly presented where it is evident that the perversion of the intestinal function is attributable to a morbid condition of the vital fluids, and it is always impossible to correct the unnatural secretion until we administer the appropriate constitutional remedy. The diathesis calling for the employment of *graphites* is peculiarly well marked and unmistakable. The chief indications are : *Ulcerative* or *eczematous state of the skin ;* blotches appear on various parts of the body, more frequently in the *flexures* or *moist portions.* The diseased surface cracks and exudes a sticky serous matter ; ulcers and wounds not disposed to heal ; tetter appears between the fingers, in the armpits, between the nates, flexure of the thighs and legs ; feet and legs are disposed to swell and ulcerate ; patients are often dull of comprehension and inclined to *obesity ;* stools hard, large,

and knotted. The rectum is inclined to prolapse, with passive hemorrhoids, and there is often present very obstinate *anal fissures* and burning rhagades of the anus. It is further indicated by a profuse, white, vaginal discharge, which excoriates the parts.

NUX VOMICA.

This remedy is highly extolled by both schools as an efficient agent in arousing intestinal peristalsis. My experience with it has not been such as to render me enthusiastic regarding it, and I am confident it is too generally prescribed for all forms of costiveness, but when properly selected is undoubtedly an excellent remedy. It is especially indicated in dark, thin, irritable, dyspeptic subjects, who are given to excesses and the use of coffee, spirituous liquors, etc.; better adapted to the studious or nervous than to the sedentary or lymphatic; patients subject to hemicrania, vertigo, flatulency, tenderness over region of hypogastrium; hepatic complications, sallow, jaundiced skin; obstructed portal circulation, with varices of the rectum; alternate constipation with diarrhœa; cramp-like pains through the pelvis and abdomen; dizzy sensation, with anxiety and apprehension of paralysis.

OPIUM.

My experience leads me to regard this remedy as one worthy of more respect and general application for the relief of intestinal torpidity than is accorded it. It is especially adapted to the aged, and when the inactivity of the bowel is due to cerebral complications. The more immediate indications are: Torpor of will, coma, stupid expression of face, which may be bloated and dark red, or pale and sunken with a relaxed appearance; lower jaw hangs down, mouth and throat dry, with great thirst; nausea; dull, heavy pain in epigastrium, and marked inactivity of digestive organs; incarcerated flatus with crampy pain, and sensation of pressing asunder in the abdomen; retention of stools, not so much due to condition or size, as to symptoms of intestinal paresis.

PHOSPHORUS.

This remedy will afford more brilliant results in the treatment of costiveness than any other in the materia medica. By its aid the writer has been enabled to effect some astonishing and most satisfactory cures of long-standing, inveterate costiveness. Among its pathognomonic indications are principally the following symptoms: Fæces *long, slender and tough, voided with the utmost difficulty;* the mind is overactive, being lively and gloomy by turns; *apprehensive of approaching evil;* marked prostration follows mental efforts; excitable, naturally vivacious but easily moved to melancholy and tears; fears softening of the brain; face *pale, sallow, hippocratic, hollow cheeks with circumscribed red spots;* lips and tongue dry and cracked; tongue and gums bleed readily; nausea with eructations of food; oppression, fulness, cramps, goneness, and burning sensation in stomach; abdomen sensitive, with a rolling, rumbling, empty feeling; chest feels full, respiration difficult, with a quick dry cough, worse upon changing from warm to cold air; *suitable for tall, slim, stoop-shouldered subjects.*

PLUMBUM.

Stools hard and lumpy, expelled with great difficulty and severe pain; violent colic and painful spasms of the anal sphincters. Concerning this remedy Dr. C. Wesselhoeft has remarked: "This is unquestionably a great remedy in certain forms of constipation. When we consider the morbid state of histological elements, as produced by lead, we are enabled to form an adequate idea of the conditions which that metal will cure. Paralysis of the extensor muscles, which are powerless, with most probable paralysis of the longitudinal muscles of the intestines, while the circular fibres are in a state of chronic constriction (painful), all serve to illustrate the class of symptoms to which lead is applicable as a remedy.

"The hypochondriacal mental symptoms of lead apply to many persons of costive habit. Melancholia which may be profound (in cases of insanity with comatose state and complete obtuseness of the senses); anxiousness of an extraordinary degree. The stools resemble sheep's dung, and are of a blackish or green color; in other cases they are ashy gray. The stools may be merely irregular, or they may occur every other day, or only once in ten days or a fortnight. No flatus is passed in cases of constipation in which lead is likely to give relief, and there may be frequent attacks of paroxysmal colic in such cases of costive habit.

"The form of mental disease which is caused by lead, and the peculiarly obstinate constipation or costiveness induced by that metal, renders it one of the most important remedies in cases of insanity, of which constipation is almost an invariable accompaniment."

STANNUM.

The following symptoms call for the administration of this remedy: Stools indurated, knotty, voided with difficulty, and the act is succeeded by a sensation of insufficiency, or inclination to repeat the effort. The mind is forgetful and despondent, with marked restlessness, loss of will and energy; an aversion to society, as thinking or talking aggravates all the symptoms; is pensive, dull and inactive, dwells upon her wretchedness; a sense of powerlessness in the rectum; empty, gone feeling in the stomach, feels

too weak to speak. In women, the chief pathognomonic symptoms for this remedy are, melancholy and great prostration preceding and during the menses, *bearing-down sensation in the uterine region, prolapsus of the uterus* and vagina, with languor and debility which impels her to lie down; leucorrhœa profuse with great prostration; dry cough, and oppressed breathing when reclining; hoarse, deep-toned voice, with transparent sputum, which has a sweetish, putrid taste; weak, trembling, with insupportable restlessness in limbs.

SULPHUR.

This is indicated when the patients are subject to skin eruptions, blotches, or pimples, from which oozes a watery fluid; voluptuous tingling or itching when undressing, or upon getting warm in bed; burning soreness after scratching; sour, bitter taste; tongue furred, white in centre with red edges; sensation of lump in throat, sour eructations; regurgitations of food, aversion to meat; enlargement and tenderness of liver; stitches and colicky pains in left side of abdomen from restricted gas; costiveness, alternating with morning diarrhœa, which hastens the patient from bed in the morning; stools scald and excoriate the anus; lancinating, pulsating, itching and burning pain after discharge; *sinking, fainting sensation accompanies* the evacuation. Especially suited to lean, round-shouldered patients affected with *herpetismus*.

Throughout this paper the endeavor has been to present most prominently the philosophy of correct living as the chief remedial means, holding drugs as secondary accessories. We apprehend that our pharmacodynamics will be regarded as extremely meagre and disappointing by those who are accustomed to study disease by peering through the glass of symptomatology simply.

Nothing is easier than the multiplication of pages by the reproduction of matter found in previous works on materia medica, and we may add that nothing is more undesirable.

The trend of this tiresome reiteration of original material is toward mental enervation in our ranks, and a fostering of that spirit of indolence which is ever seeking some short cut in therapeutics. While we heartily endorse the doctrine of symptomatology, when properly construed, we recognize many vital features in the treatment of disease not included within its limits. He who ignores hygienic essentials, relying solely for success in the treatment of constipation upon the administration of some "indicated remedy," pursues an absurdly narrow-minded course, and one which merits the unstinted disapproval of discerning practitioners.

CLINIQUE.

MECHANICO-PHYSIOLOGICAL CONSIDERATIONS ON HERNIA.

BY GEORGE H. TAYLOR, M. D., NEW YORK.

PART III.

THE process of returning to the cavity of the abdomen of a hernial protrusion, consists usually in urging it inward and upward through its canal by the hand of the skilled surgeon, and is denominated *taxis*. It is a direct application of exterior mechanical pressure upon the tumor itself, with such variations by manipulating about the neck as immediate circumstances may suggest. Whatever other aid may simultaneously be brought into requisition can scarcely be regarded as direct or of much mechanical or physiological account; the purpose being in general confined to that of diminishing systemic and local sensibility, and even of extinguishing it altogether. Means are also sometimes used to relax the general muscular system and the local tissues, so they shall not resist the mechanical purpose of the operator. Contributory to these ends is the free use of *opium*, *chloroform*, *ether*, and other drugs capable of suspending vital functions. In connection with the drug effects, those of extremes of temperature are usually added — sometimes it is very high temperature, at others very low—secured by fomentations, by the spray or by ice. When it is considered that these aids to the process contribute nothing whatever to the direct force required for the operation of taxis, and that they diminish or annihilate the only safeguard against positive, perhaps fatal injury, it must be considered that they are of doubtful expediency. Without doubt, these means often complicate the process, and actually diminish the resources both of the system and of the operator.

In these endeavors, the abundant mechanico-physiological resources of the system are ignored, or incontinently wasted. These resources only require intelligent direction to become truly therapeutic, in the best surgical as well as medical sense of this term.

A single exception is to be noted, as to the remedial assistance of inherent powers. *Gravitation* has been made partially available in aid of reduction. In only a small portion of the text-books, however, are directions given for raising the hips of the patient while he is lying on his back, during the process of taxis. This direction is apparently more for the purpose of diminishing the troublesome interior downward pressure than for that of securing the direct use of a mechanico-physiological force.

Taxis, when the term is limited, as it usually is, to

direct manipulation and urging by the hand of an operator, proves insufficient or worse, for several reasons, the principal of which may here be enumerated.

When there is no inflammatory or other morbid change in the hernial mass, and little or no impediment at the hernial neck, the protrusion is easily pushed back; but, there being no permanent space within, and no physiological force operating to oppose its return, nothing is really accomplished. The mere return to the abdominal cavity effects nothing in relation to original causes, constituting the potential factor of the affection.

In strangulation, not only are the same facts patent as respects retention and the potential factor of sustentation, but others of most serious import are present. The hernial mass is increased in size, at the same time the tissues included by the constriction at the neck are in a condition of actual disease, and will not tolerate rough handling. The distention of the capillaries thins their walls, and abrogates their contractile power and elasticity. The contents of these vessels cannot be urged onward in their natural course by any exterior mechanical means, because occluded by the stricture; and the walls of these channels, thus rendered abnormally delicate, and having no outlet, are easily destroyed in the absence of the strictest caution.

Besides, the nerves of the part participate in these morbid changes, and are thereby rendered exquisitely sensitive; the least touch demonstrates taxis to be impossible while the consciousness is present; and it is necessarily perilous and fool-hardy to practice taxis under the conditions stated when the consciousness is nullified by drugs. There is, then, nothing to guard against the perpetration of serious injury to the local tissues. Sensibility affords the advantage of protecting the patient against injury by a useless process.

The mechanical obstacles to the success of taxis are: the sharp edge of the narrow orifice formed by the inelastic tissues surrounding the neck of the protrusion; the increased bulk of the hernial mass; the tension of the vessels penetrating the mass with diminished power of resistance of their walls, now easily destroyed; and the in nowise diminished operation of the downward forces to which the affection was originally attributed, and the absence of any increase of action, or improved direction of those mechanico-physiological forces which, in health, are prophylactic, and in disease are curative. To these may be added the purely physiological one of the safeguard of the sensations.

To these difficulties of taxis, another of a mechanical character, rendered conspicuous by the mechanico-physiological method, must be added, because adding greatly to a proper understanding of the subject.

The protruded portion of the bowel, under the circumstances stated, will not be pushed in the true direction of the canal, even in cases where it is not tortuous, as it frequently is. The force applied to the exterior protrusion will, in the majority of of examples, act upon the *sides* of the canal, and not in the direction of its longitudinal axis, or at the very best, against the resisting tissue encircling the neck. The internal orifice is small in comparison with the area of the exterior mass. The little pressure or resistance there may be, even within the neck, is, on mechanical principles, many fold increased by multiplication by the superficial area, and quickly rises beyond the reach of any practicable exterior force, even though it were advantageously applied.

The mechanical difficulty described may be thus illustrated: If the empty finger of a glove be passed through an opening a trifle less in size in a piece of of card board, the mechanical conditions referred to are tolerably represented. When an attempt is made to return the glove finger, by compelling it to recede by the exterior application of force, as by pushing against its side or end, it will be seen that the object yields in any direction, and in all directions, rather than in the one desired. The soft and flexible fabric doubles upon itself in the most bewildering manner, seeming to increase instead of becoming diminished in bulk. The edges of the wall through which it was thrust appear to cling with the utmost pertinacity to its contact with the limp fabric, determinedly refusing its retreat, and determinedly resisting all mechanical persuasions to expand and afford sufficient space for exit. The act of the through thrust of the finger, turns outward the inner border of the orifice, which every attempt to push back only causes to catch and hold the receding object more tenaciously.

The actual mechanical problem presented in most cases of strangulation would be more correctly represented by passing the glove finger, as before described, through *two* orifices, in *two* pieces of card board, instead of one; these should be separated by a little distance, and not opposite each other. The consequence of exterior taxis can only be to crease and fold the protruded part, and thus cause it to engage more firmly at the resisting edges and points. The mechanical conditions are plainly such as to render success by the ordinary exterior mode of taxis well nigh impossible.

The mechanical difficulties above presented are easily resolved. In the illustration, a child even would see the advantage of substituting gentle *traction* for violent pushing. A small part of the force applied in the same axial direction, *but at the opposite side of the opening*, instantly removes the difficulty. The imprisoned fabric is extracted almost without effort.

In like manner the force to reduce hernia must, to

be successful, be applied, not to the exterior of the protrusion, but to its interior or abdominal portion. The following are obvious advantages arising from the mode above indicated:

A far greater amount of mechanical force is available for its interior application than it is possible to bring to bear exteriorly.

Such force reaches the protruding and presumably sensitive and congested part, through the healthy portion of the continuous tissues. An essential part of the desired liberation is effected, and corresponding relief given, *before* the force applied even reaches the most suffering portion of the tissues involved. The extracting power applied within actually relieves the morbid condition as it is conveyed to the morbid part.

Traction from the interior side of the protrusion is necessarily in the proper axial direction. The hernial canal is thus straightened, and no inefficient and injurious impingement against the walls of the canal and columns of the neck are made. The whole of the force is utilized for the desired purpose, and in the correct direction, and in no other.

The interior mode of traction removes the folds of tissue that clog the hernial opening, the sharp outward-turned edges of the encircling fibres bordering the hernial neck are turned inward by the removal of the interior pressure consequent on the reversalof the direction of the force acting upon them. This increases the size of the hernial opening, which therefore further facilitates the reduction.

To be beneficial, taxis must be employed in connection with the application of the general principles, which have been hereinbefore set forth. The method of its use will be shown hereafter, in connection with details of cases wherein it is applicable.

ADHESIONS—IRREDUCIBLE HERNIA.

Inflammation of serous membranes is liable to cause the parts in contact to adhere. They become glued together by the plastic lymph which is usually effused under the circumstances. The membrane which lines the chest and covers the lungs, which lines the joints and forms their capsules, and which lines the abdominal cavity and is reflected over all its contents, is of this kind, and may, under favoring conditions, form adhesions, obstinately limiting the natural motions of the part.

The condition most favoring this accident of adhesion of opposed surfaces in all the organs referred to, is *immobility*. The lungs have been found in places firmly attached to the side, when previous inflammation to account for it has not been suspected.

The health of this class of membranes demands functional duty, and this consists of the gliding of the parts covered by serous membrane upon each other. This principle of the fundamental necessity of surface motion for the health of serous membranes is equally true of the cavities of the joints and of the interior parts of the body.

The true remedy for adhesions affecting any serous surface consists, manifestly, in the reversal of the conditions by which they were produced. This is demonstrably motion—causing the adherent surfaces to move upon each other—although the action, from necessity, begins by the very minutest degrees. The extent of motion thus supplied is easily, gradually increased. The consequence is that the adhering substance, which is always of low vitality, becomes broken up, absorbed, and disappears. The process, initiated and conducted in a progressive, persistent way, is entirely painless, and affords positive and unequivocal results,—the return of the normal motion and the normal condition of the membranes.

This process and its consequences very closely resemble those following fracture of bones. The provisional callus consists of effused substance of low vitality, which is rapidly removed on the return of motion to the part in which it was formed. Similar consequences follow in cases of fixed joints, of pleural adhesions, and of the peritonial adhesions often the consequence of hernia, which supplies very similar favoring conditions, especially the fundamental one of enforced immobility.

The convoluted arrangement of the digestive tube and the freedom of its appendages, eminently adapt them to glide upon each other and upon the interior surfaces of their containing walls. Indeed, such action inevitably follows every motion of the trunk. It is not a strained inference that such gliding and motion of parts upon each other are essential conditions of their health, and that all restraint of it produces a deleterious reaction against health.

The effect of non-existence of natural gliding of interior organs is manifested in this way: A loop of intestine is allowed to point persistently in the same unvarying manner to the same part; it is allowed thereby to insinuate itself wedge-like among the yielding tissues in contact, which, under the circumstances, have no protective reaction to prevent it. To supply the gliding motion is both to blunt the point of the wedge, and to apply it to resisting parts. These circumstances effectually obviate the possibility of protrusion.

To restore the motion in the way already pointed out, and subsequently to be further shown, is to break up adhesions, and to cause the absorption and removal of adventitious tissue. Of the power and efficacy of these means to accomplish the purpose there is ample demonstration, not only in experience in joint ffeactions, and pleuritic adhesions, but also in cases of hernia. It is a principle abundantly verified in experience.

XUM

The adhesions of the interior organs at and about the hernial neck, are the most prominent cause of irreducible hernia. The mistake in the treatment of this variety is the attempt to reduce suddenly—to suppose that the adhesions may be overcome at once if at all, instead of progressively. A little reflection would indicate that, even were the sudden removal of adhesions possible, no advantage is gained till the powers of natural sustentation are developed. These, in the nature of things, must be progressive, and not instantaneous; by intelligible growth, and not unintelligible magic.

The reader can now see more clearly than before the necessarily damaging effect of the truss. Its influence is to mechanically oppose the gliding of surfaces it is so desirable to promote; to produce immobility where mobility should be increased; to superinduce the formation of adhesions, and so prevent the restoration of the lost physiological activities whose outcome is the hernial manifestation.

LOCALIZATION OF MECHANICAL EFFECTS.

The reader who has had no advantages of experience and observation for testing and verifying the principles of the mechanico-physiological therapeutics of hernia, may be bewildered by the apparent lack of localization of the remedial principles, and even of the processes herein set forth. How, he may inquire, are processes which engage, perhaps, a large portion of the muscles of the whole frame, to become locally curative? and how can an upward motion of the anterior wall of the abdomen produce the desired special effect at the circumscribed hernial area?

This is a difficulty of the understanding, of one unfamiliar with mechanical principles involved, in any of their varied applications. Omitting, for the present, the correlative physiological facts involved, the attention may be called to those of a purely mechanical nature, whose relevancy to the mechanics of hernia will be conceded.

The location of a hernia is the point which has least power of resistance of any in the abdominal wall to the combined forces brought against it. The existence of the protrusion is the demonstration of the fact stated. There is but little resistance before, none whatever after the protrusion, because the resisting tissues have been pushed aside. There is nothing but the elastic peritonæum, the equally elastic skin and the intermediate and yielding connective and cellular substance, having each and all but slight mechanical resisting power.

Now, hernia is possible only in case of the inadequacy of the interior forces, which have been deteriorated to the extent of abolition. Hernia is therefore related only to exterior opposition of a mechanical nature. Its complications do not afford exceptions.

The mechanical law involved is this: Under stress, the resisting object yields at the weakest point, and nowhere else. The fact of local yielding relieves pressure throughout the remaining area. A chain breaks at the weakest link, and not only does not partly break at other links, but these are hereby relieved of strain. A bent stick easily breaks where it is notched—the remainder does not even bend. A cork flies from a bottle of effervescing contents, because its adhesion is less than that of the body of the glass. It is as readily driven into the bottle, when the superior force is in the opposite direction, as the child, experimenting with the steaming contents of a bottle, readily discovers; condensation, a fact existing not only near the cork, but throughout the interior, forces the cork inward. The cork illustrates the protrusion.

In boiler explosions, the line of fracture is identical with the line of least resistance. In collapse, the same principle is equally applicable. The remainder of the shell is unaffected, except possibly that der ved from the momentum caused by suddenness.

In relation to hernial protrusion, the abdominal wall is a diaphragm, having a weak and unresisting point, as in the above mechanical illustrations. This is, of necessity, under the control of dominant forces, and yields to the exterior and interior mechanical play of these forces. The true therapeutics of hernia consists in increasing the dominancy of the interior force acting inwardly, and even the cavilling inquirer may be certain that the greatest apparent effect will be demonstrated at the point of least resistance, or the hernial area. Hence, in returning the hernia by the mechanico-physiological process, the whole mechanical effect becomes effective at the hernia, and disturbs no other part of the wall.

DISSECTING ANEURISM OF ABDOMINAL AORTA.

Reported by C. F. Ring, M. D.,
House Physician Ward's Island Hospital.

SERVICE OF DR. ALFRED K. HILLS.

The following somewhat interesting case, owing to its obscure nature and the rather unusual *post mortem* appearances, occurred recently in this hospital. The patient, a slender, undersized, though muscularly built man, æt. 30, was admitted on April 5. He complained of distressing pains in the abdomen and in the lumbar region, more especially in the former locality. The pain he described as being of a twisting, sawing nature, and, to use his own language, as if one portion of the intestine was being drawn forcibly upward, and the other as determinedly downward—a spiral motion being given at such times to

the central portion; this feeling was nearly continuous. His sufferings were severe, and caused him to bend far forward and to assume various contorted positions, but without securing the slightest relief. Attention was at once given him, and it was found that manipulation of the abdomen did not increase the pain, nor conversely, in the slightest degree mitigate it. His temperature, pulse and tongue were all normal, and his appetite, as he said, was good. There was no nausea, and the skin presented a normal appearance, and never showed unnatural moisture, even when suffering the greatest pain. I questioned him closely as to his illness, and obtained the following history: About three weeks prior to his admittance into the hospital he had slept by an open window, and the following morning—the weather having changed to cold during the night—he awoke feeling thoroughly chilled, and with cramp-like pains in the abdomen and lumbar region, which at times extended into the groins. These symptoms moderated during the day, only to return in the course of the following evening and grew gradually worse, finally assuming the character described when he sought for relief in this institution. He had had no movement of the bowels for seven days, and he seemed apprehensive—since he retained his usual appetite—lest fæcal accumulation might be a factor in the production of his pain. Lungs and heart were apparently normal.

The important question of diagnosis and of treatment was the next point to be examined, and this proved to be, as will be seen, the least responsive of all.

With the above detailed symptoms, and considering the duration of the illness, and the character of the pains, the absence of fever and the want of tenderness of the abdomen, the relief from motion, etc., peritonitis could reasonably be excluded from consideration. As symptomatology alone often serves the physician in good stead even when he is ignorant of what the phenomena of the disease may mean, I ordered an injection *per rectum* and gave *colocynth* 3x, a powder every twenty minutes. The injection was soon followed by a copious stool, with slight relief to a feeling of tension in the left iliac region, which he complained of, but the essential symptoms remained unchanged at the end of three hours. Bed-time drawing near, and being anxious to give the patient some relief for the night, and at the same time to give the remedy a fair trial, I ordered *colocynth* in *aqua* two ounces, a teaspoonful to be taken every half hour. The following morning he reported having passed a tolerable night, but before 11 A. M. the pains—continuous still—were as bad as ever. *Dioscorea* 3x was next given, but with no result whatever. I had learned, in the meantime, that hot water applied in a bag to the abdomen gave considerable ease, and taking a cue from this fact, *arsenicum* 3x was administered for a time, but no additional relief was noticed. Although distressing, the pains were not unbearable, and I avoided anodynes. The abdomen was repeatedly examined, but beyond being somewhat tense, its muscles standing out distinctly, nothing abnormal could be discovered. Bearing in mind the alleged cause of his illness, and fearing peritonitis might develop from his present condition, *bryonia* 3x was administered for some hours, but, like its predecessors, it gave only a negative result. At this stage of the case Dr. Hills saw the patient, and, after hearing his history, thought that *bryonia* should afford relief and directed its continuance. A few days later Prof. Dowling saw the patient and expressed the belief that he was suffering from "painter's colic." He was treated accordingly, but with no better result than before. I considered intussusceptio, neuralgia, subacute peritonitis, etc., but essential symptoms to these conditions were wanting, and remedies chosen for their possible presence failed, like all the others, to produce any effect. Death came suddenly and without apparent aggravation of the preceding symptoms.

The result of the autopsy, held by Dr. W. Storm White, pathologist to the hospital, will explain what has been omitted in the foregoing. It is as follows:

Julius Beck, æt. 30; German. In United States ten years; in hospital fifteen days. Died April 20, 1884.

Height 4 feet 11 inches; head 20 inches; chest 29; abdomen 25.

Muscular system well developed; no superfluous fat. Rigor mortis well marked.

Heart: 6½ ounces. Slight thickening of the aortic valves; otherwise normal.

Right lung: 8 ounces. Hypostatic congestion.

Left lung: 6 ounces. Same as right.

Liver: 42 ounces. Fatty infiltration.

Spleen: 4 ounces. Normal.

Right Kidney: 3¾ ounces. Cortical substance somewhat increased; otherwise normal.

Left Kidney: 4½ ounces. Normal.

On opening the abdominal cavity, the most remarkable dislocations of the intestinal tract were noted. The stomach laid with its long diameter from before, backward instead of laterally, and in the median line, with the pyloric extremity anterior. The cœcum was pushed upwards four or five inches above its normal position, and the vermiform appendix was bound upward onto the ascending colon. • Over half of the ileum lay in the right iliac fossa beneath and behind the cœcum. The transverse colon bent downward to a point below the umbilicus, then upward to nearly its normal situation. Partial stenosis

existed at its middle third, allowing only the passage of the little finger. All these abnormalities were probably congenital.

The peritonæum forming the folds of the great omentum and upper portions of the mesentery were firmly adherent to each other, and distended out of shape by an interstital infiltration of blood. About 64 ounces of fluid blood were removed from the abdominal cavity, besides considerable clot.

In the adhering mass of peritonæum we had unmistakable evidences of adhesive inflammation, without the formation of pus.

Stomach: On opening this organ, our first thought was of some corrosive poisoning, as there were numerous ecchymoses, more particularly along its internal inferior portion. Otherwise it was quite normal.

Intestines: Normal, except the constriction in the transverse colon.

Aorta: Lumen very small indeed, but the walls firm and, to all appearance, quite normal.

Cœliac axis: The opening from the aorta into the axis was large and very irregular, and showed the destructive results of an old endoarteritis. Just beyond the opening the lumen of the cœliac axis was lost in a *dissecting aneurism*. The immediate cause of death was found in the *shock* resulting from the bursting of this aneurism, through the peritonæum into the abdominal cavity.

The infiltration of the peritonæum with blood was brought about (probably) by two different processes: First, by the blood being discharged from the cœliac axis by way of the aneurism into the adventitia and surrounding connective tissue of the parts. Second, by direct rupture and diapedesis through the walls of the blood vessels supplying the infiltrated parts, and through the vessels of the collateral circulation, due to increased pressure on their walls in the endeavor to set up a collateral circulation, and the stoppage of the flow through some of the branches of the cœliac axis. This rupture may have occurred as the result of thrombosis resulting from the dissecting aneurism. The course of the art. gastro-epiploica dextra after reaching the stomach, was marked by a series of ecchymoses and interstitial hemorrhages, many of them corresponding in position to the ecchymoses observed on the mucosa of the stomach.

The neighborhood of the aneurism, which was not larger or longer than a duck's egg, was so bound together by the adhesions that the course of the sup. mesenteric artery could not be followed after leaving the aorta until it had gone on to its distribution. So it will be impossible to say whether it was affected or not. Suffice it to say that the interstitial infiltration of blood, the adhesive inflammation, and the aneurism, were not of sudden or very recent origin.

CIRCUMCISION.

By A. F. Trafford, M. D.

It is remarkable that this ancient process, in practice among the Hebrews for many thousand years, has passed without any consideration or even observation in the Gentile world; or slurred over as a rite of mere Jewish superstition, and scarcely even distinctively presented in a hygienic point of view.

If there are grounds of the character last referred to in its support, then there can be urged no more or better objections to its introduction into general use than that of hair or nail cutting, or tooth extracting, or even vaccination.

Some say "leave things as nature made them." The processes last referred to are, at least, recognized exceptions to any such general rule. Nature leaves many things imperfect, which are improvable by the judicious use of human power and skill. This may rather be deemed a part of nature's system, leaving man as to most things connected with the preservation of his life, health and comfort, at perfect liberty to make bad things worse, or better, or let them be in the condition in which he finds them. The proper sphere of man, in the order of nature, is to exercise the faculties bestowed upon him in improving what is left subject to his control.

All this must furnish no encouragement to mere experiments, attended with suffering or danger, but only to such improvements in action as are reasonably necessary, and the effect of which will be beneficial according to the lights of science and experience.

These lights, so far as they have been brought to bear upon the operation of circumcision, prove its utility as a measure of cleanliness and healthfulness, to facilitate copulation and also divers remedial applications, and aid in the processes for the curing of some diseases and the prevention of others.

It has an important office in facilitating the treatment in venereal diseases, and acts as a preventative of nervous troubles caused by reflex action in children.

It is recognized by high medical authority as a preventative of ulceration, and as a means of cure in certain cases of phimosis and paraphimosis.

If these considerations are sustained by fact and experience, as I confidently aver they are, as well to the knowledge of all physicians the course of whose practice has furnished it; then certainly I can appeal with assurance to the whole medical profession to help dispel prejudice and ignorance, and give aid to make popular a practice as useful and important as vaccinating, or at least having the same tendency to usefulness. If I am wrong let my errors be pointed out; if right, let the medical profession respond, as it always has done, boldly and energetically in the interest of science and humanity.

The New York Medical Times.

A MONTHLY JOURNAL

OF

MEDICINE, SURGERY, AND COLLATERAL SCIENCES.

EDITORS:

EGBERT GUERNSEY, M.D. ALFRED K. HILLS, M.D.

Business Communications should be addressed, "Publishers, 526 Fifth Ave.," and Checks, etc., made payable to THE NEW YORK MEDICAL TIMES.

Published on the First of each month.

OFFICE, 526 FIFTH AVENUE, NEW YORK.

WM. B. WOOD, M.D., *Business Manager.*

NEW YORK, JUNE, 1884.

"*A regular medical education furnishes the only presumptive evidence of professional abilities and acquirements, and* OUGHT *to be the* ONLY ACKNOWLEDGED RIGHT *of an individual to the exercise and honors of his profession.*"—Code of Medical Ethics, Amer. Med. Ass., Art. iv., Sec. 1.

Our practice is *not* "based on an exclusive dogma, to the *rejection* of the accumulated experience of the profession, and of the aids actually furnished by anatomy, physiology, pathology, and organic chemistry."

A NAME; WHAT IS IT?

A NAME may either be a trade mark, to call attention to a particular kind of goods, selected for its power of attracting attention without giving any idea of the real character of the goods, or the result of a kind of poetic license, as seen in the names given to individuals, mining organizations and various stock enterprises; or, as in plants and animals, based either upon the discoveries of a species or upon certain peculiarities either of form, location or habit, which are indicated in the structure of the name given. In the latter case the name is a truthful index to the subject. If it is a plant, a tree, or an animal, a department in science, or a scientific organization, the name gives a distinct idea of its character. A physiological society, a microscopic society, are supposed to devote themselves specially to the subject indicated in their names. They are not societies for the discussion of general subjects, and we would not visit them or look over their proceedings for information outside of their specialties, any more than we would visit an oculist for treatment of urinary troubles.

The question is an important one to the public and to scientific men: Can we, in good taste or with any show of honesty, use a specific name for a scientific organization, which does not represent the real character and work of the society?

In using a name which is sectarian and represents one idea, we must not be surprised if the great public, more especially the law-making portion of it, take us at our own word, a word which we blazon upon our banners and place at the head of all our society organizations, and refuse to admit us under that distinctive name into the army and navy. The art of medicine they claim, and justly too, is catholic, and if we ourselves choose to work under a sectarian name, no matter what our practice, our scientific attainments, or our experience, we with our own hand close the door of admission to important positions which would otherwise be open to us. We must enter the army and navy, if we enter at all, not as allopaths, or homœopaths, or eclectics, or under any other distinctive sectarian name, but simply as physicians and surgeons, and once there we are at full liberty to practice according to our best judgment and experience. Those of us who find the rule of similars useful in the selection of the drug and determining the dose will use it as occasion requires, while those who are more successful in pursuing a different course will not be debarred from such action, but be left to their own individual judgment. Any other course would lead to inextricable confusions and jealousies. Separate examining boards would be required for each school, as well as separate pharmacies. The difficulty of determining the distinct dividing line between the schools, and the almost constant trespassing upon each other's domains, would lead to confusion, bitter animosities, charges and counter-charges, from which it would be difficult to get at the real truth.

In all this matter the old school have been more politic and have shown a riper and more far-sighted wisdom than the new school. Long since they renounced the distinctive sectarian name by which they had been known as followers of Galen, refused to be recognized as allopaths, and claimed to be simply physicians and surgeons, with full liberty to range through the entire field of medical literature and experience, culling facts from whatever source they chose. Notwithstanding this seeming frankness and liberality, they have until recently been bitterly illiberal and sectarian, intrenching themselves within the walls of "*regular*," whose gates were only opened to those who could repeat with unction and emphasis the Shibboleth: d—n the homœopaths. And it must be confessed that the homœopaths have richly deserved, not a little only but a good deal, of judicious d—ning; for there are times and occasions when, ac-

cording to the testimony of some of our best theologians, a good ringing oath only fitly emphasises our convictions.

The new school, in nineteen-twentieths of its members, are now and have always been non-sectarian in practice, looking upon the principle of similia and the dual action of drugs as only a part of the various principles included in the art of medicine, to be used, any or all, as occasion or circumstances required.

The old school, far in the rear of the new school as they are in the knowledge of drugs and their indication and application in disease, takes precisely the same ground to-day which has long been taken by a very large majority of the new school, that the art of medicine covers the facts and experience of thoughtful minds everywhere, to be utilized as occasion requires, and as they are utilizing daily, in a crude way it is true, the facts and principles established by men whose investigations have been directed in specific channels, so the new school are now availing themselves, as they always have, of the pathological and chemical investigations of their brethren. Thus each learns from the other, and all find, as they are brought to know each other better, more of honesty, more of good-fellowship, and more in which both are in accord, than they ever dreamed existed. The opposition to the new school is no longer against the distinctive principles of homœopathy, the principle of similia and the dual action of drugs, for these are now admitted by all, but against the theories and transcendental ideas which have no logical connection with homœopathy, but which have seized it in their deadly embrace and sought to dictate its course and make it responsible for their public utterances. The theory of potentizing drugs in which the reduction is carried beyond even the power of the microscope or the spectroscope to determine their actual presence, and the claim that their curative power is increased the further we get away from the real drug, no matter who was its author, while having no logical connection with homœopathy, has ever been its stumbling block and its curse. Let the men who advocate these theories believe as they like, but let them stand or fall by themselves, and no longer pose before the public as the soul and vital force of a school with which they have no logical connection.

A great work has been accomplished by the new school in therapeutics. Scientific principles have been established which have revolutionized the practice of medicine. While it may be a question in the minds of honest, earnest men, if this work could not have been better accomplished and with more safety to the public, outside of a distinct sectarian organization, there can be no question now, that honesty and good taste alike point to a discarding of sectarian names in connection with our public journals, our public institutions and our public societies, and the adoption in them all of some name which will better represent the real character of our work. If there is so little distinction in our practice that it has to be labeled, as the artist labeled his picture, "this is a cow, this is a horse, this is a sheep," so that the public might not confound one with the other, the argument might be strong for labeling our public organizations in accordance with that idea; but when we label a glorious landscape—in the distance its grand and wild stretch of towering mountains, and in the foreground its blossoming trees, its shaded pools of water, its beautiful still life—*a cow*, simply because a cow may be seen somewhere in the picture, the absurdity of our label becomes apparent.

The question of dropping the distinctive name *homœopathic* from our public organizations should be decided, not on the ground of sentiment, but on that of sound public policy, of honesty, and good taste, and can be discussed without acrimony, but in that friendly spirit which should ever exist among the advocates of great truths.

SCIENTIFIC (?) PRACTICE.

THE daily papers, in their account of the recent last illness and death of a well-known man, are responsible for the following statement, which seems to us at this distance as unworthy of recognition as scientific practice. The patient informed the physician in attendance that he did not care to live, and that all he wanted was medicine to give him temporary relief, which he was sure the physician could do.

The report says the patient "had taken a little tea and toast, which produced such distress that on the next day he took no nourishment whatever. The following day he drank three glasses of milk, and the next day one glass. This caused so much pain that no one dared to give him any more. Then he tried a little wine and water, but for the last five days he took

nothing but water and his medicine, which he always received from Dr. ———, who has visited him eight times each day. At no time did he decline to take whatever the doctor might give him, until after 12 o'clock yesterday, when his stomach refused to retain even a teaspoonful of water."

While all patients must sometime die, we do not perceive in this report the slightest attempt upon any reasonable grounds, to keep this one alive! And still this treatment will be palmed off as scientific, chiefly, we presume, because the attending physician happened to be a graduate of a college which is proud of its allegiance to the "Old Code"! The practitioner who keeps abreast the times would have attempted to prolong life in this case—where digestive power was absent—with the various artificially digested foods, which are now procurable, and which afford our only sheet-anchor in such cases, and in which drugs are worse than useless. This incident is only another evidence of the ignorance which prevails as to the value and uses of foods, and should urge the medical schools to higher education in this direction, in the majority of which the science of hygiene plays a most insignificant part.

PERSONAL MAGNETISM.

THE developments of the past few weeks in the financial circles have brought fresh to our minds the lessons of history in every age of the world, that much of success in life, and that much of national calamity, of ruin and disgrace in private circles, comes directly from personal magnetism. We have seen a young man so cool, plausible, and self-reliant, so magnetic and persuasive in his character that his statements are taken without proof, draw from the pockets of statesmen, financiers, and business men, supposed to be prudent and far-sighted, millions of money for investment in government contracts which had no existence, except in the brain of the schemer, and which his investors do not even insist upon seeing. Of course the time of reckoning must sooner or later come, and as the bubble bursts the magnetic force which held all these men enthralled melts away like the mist. What we have seen here going on in a large scale is seen every day in public and private life on a smaller scale, in the personal influence of one individual over another, or over many others, in which real knowledge of facts play but a small part. A persuasive manner, an air of honesty and sincerity, a cool and calm statement given with all the assurance of positive knowledge upon matters about which you are supposed to be perfectly familiar, is likely to inspire confidence and trust.

It is said of an eminent statesmen, who was very desirous of hearing a popular speaker present the cause of a great charity, and fearing the effect upon him, left all his money at home. Before the service was over he was so completely magnetized that when the collection was taken up he requested a friend at his elbow to loan him some money. But the matter-of-fact Quaker replied, "No, Benjamin, I will not loan thee. Thy judgment is at fault, and thee will regret it to-morrow." This magnetic influence is seen in revivals, and in periods of great emotional excitement is apt to be transient, disappearing when the wonderful power is no longer felt.

There is scarcely anything about which the general public are so profoundly ignorant as the laws of hygiene and the physiological structure of their own bodies. The personal presence of the physician, his air of profound wisdom, his positive assertions, his cool and self-reliant manner in making his statement, has more to do with some men's success than any superior knowledge they may have of their profession. All this is very well, especially if back of it is positive skill and actual knowledge; for sooner or later there may come a time when both will be required, and without which the illusion will be dispelled. Personal magnetism is the open sesame to the heart and confidence, and when combined with honesty, judgment, and sound practical knowledge, is not only sure to win confidence, but to deserve and retain success.

It is more easy than is generally supposed to find among men of the world, men of honesty, intelligence, refinement, and literary culture, men whom we are delighted to meet in social life, whom we esteem as honest men, the imagination so powerful in some matters that conclusions are reached and held with the grip of strong belief, which, from our stand point, are thoroughly illogical and utterly without foundation.

With the high dilutions, where a single drop is supposed to medicate, if it is all used, more water than is found in all the oceans, lakes and rivers in the world, we are unable to account by any

process of reasoning for the wonderful and almost miraculous effects claimed to be produced by these potencies, and the question comes back to us with renewed force, are not the entire effects claimed to be produced illusory, the result of careful observation of hygienic rules, the magnetism of the physician and the credulity of the patient? Cures are undoubtedly effected, brilliant cures; so there were by Perkins' tractors, so there is by mind acting upon mind, so there is by simple faith. The subtle influence of the human mind will often produce more powerful results than material agents, given in tangible doses, and so long as we understand so little of vital force, of life and its wondrous phenomena, of mind, its origin, sustenance and growth, its complex and varied action, its mighty powers, it becomes us to treat all these questions with modesty and candor.

The high dilutions in our hands never produce results, even though they may be selected after a careful study of symptoms by an expert high-dilutionist.

In mentioning a case, the other day, to a high-dilution friend, he suggested a remedy in the thirtieth, which he was positive would produce the desired effect, and kindly furnished it from his own case. It was given precisely as directed without one particle of result.

The question is not, are not cures sometimes effected, and brilliant ones too, by high-dilutionists, pure Hahnemannians, as they are fond of calling themselves, but is a system of practice which may at times produce charming results when dictated by one man, but utterly fail when followed by another, in any way safe or reliable? Let the men who believe these extreme transcendental views are safe guides in the broad field of practice, that the high dilutions are always indicated and always more effective than other forms of medication, stand or fall by themselves. It is possible they have reached a higher plane than ourselves, and that in the dim future we may rise to their standard, but just now we are earthy, and of the earth, and have not yet reached that state of spiritual purity which renders us fit associates for them.

SOME STATISTICS.

Dr. John Ellis has published, in pamphlet form, and scattered broadcast over the country, an article entitled "Deterioration of the Puritan Stock and its Causes." The statistics which he gives, notwithstanding their importance, appear to have been accepted for the purpose of an opportunity to present a vast amount of theological notions, which constitute the bulk of the volume. While we have no objection to the inculcation of religious principles on all proper occasions, we must seriously object to the dragging down of statistical or of scientific facts, to the plane of the theological standpoint, particularly when the views advanced are sure to be accepted only by the few. Sectarianism, of whatever nature, is always a barrier to scientific investigation, because the facts are made subservient to the theory, rather than as a proof of it. Let our theories stand just so far as the facts will carry them, and no farther.

We are quite aware that some minds are satisfied with nothing short of dream-land, where they mostly dwell, and it is from such sources that fine-spun, impractical theories originate. It seems to be the tendency, on the part of some, to so intermix the tangible with the metaphysical as to make their productions useless for practical purposes, without so much sifting, that the ordinary mind fails to grasp the kernel which is really present, in a vast amount of chaff.

His official figures are confined to the State of Massachusetts, and cover the six years from 1876 to 1881 inclusive, which on their face appear to indicate that during that period the deaths exceeded the births among native Americans in that State by 29,796; whereas the births exceeded the deaths among the foreign-born population by 87,824. As there is some confusion in the classification, however, Dr. Ellis thinks it not safe to infer from the statistics more than that "the foreign-born inhabitants of Massachusetts, numbering less than one-fourth the population of the State, give birth to more than one-half of the children born in the State."

The New York *Tribune*, in reviewing the work editorially, forcibly says:

"This conclusion, if trustworthy, is sufficiently serious, and it remains to ascertain the cause of such a marked decline in the vitality of a once specially hardy and vigorous race. The question has, no doubt, often been discussed before, but it is still an open one, since none of the explanations thus far suggested appear to cover the ground. Dr. Ellis believes that tight dressing, luxury, indisposition to assume family cares, and impatience of the domestic life among the women, and intemperance among the men,

are the principal causes of the apparent deterioration of the Puritan stock.

As the foreign-born population drink more whisky and beer than the native-born, intemperance can hardly be accepted as the explanation. As tight dressing has never been confined to Massachusetts, in the first place, and, in the second place, is nowhere at present practiced to anything like the extent that it was a quarter of a century ago, neither can that evil be regarded as solving the problem. In fact, it is certain that women dress to-day much more sensibly than they ever did, and pay more regard to physiological laws. It is also true that the strain of life upon a large percentage of them is less, if we except the effects of voluntary dissipation. But the chief difficulty consists in the obvious fact that the people of Massachusetts, generally speaking, live very much as the people of most of the other States live. They are certainly not more given to bad habits than their neighbors. They are certainly not behind the rest of the country in civilization, in sobriety, in ordered habits, in intelligence. Where is it that the causes of the decline referred to are to be sought, then?

Climatic conditions will not afford the answer, because the climate was the same when the Puritan stock was most vigorous. But the training of the young and the increasing ambition of girls may perhaps breed an indifference to or a dislike of marriage, and thus encourage that dread of large families which, whether in Massachusetts or in France, is always reflected in the vital statistics. The growth of such sentiments among the women of any community must sooner or later affect its increase. The tendency to cultivate the intellect exclusively also has mischievous results, and it would appear that Nature has in this way made it impossible to err too far or long in that direction, since the consequence of such a policy is the rapid disappearance of the stock upon which such experiments are made. Reviewing all the facts and suggestions, it seems necessary to conclude that the main cause of the decline in the Puritan stock is really a change in the views of life held by women, and it can only be presumed that the new views are more influential in that State than elsewhere in the Union. This alone can account for the fact that a similar decline is not observable in other States."

INCREASE OF INSANITY.

Within the past twenty years no subject connected with medicine has received more thought and more general attention than nervous diseases and the care of the insane. In Europe and America millions of money have been spent in erecting costly edifices and supplying them with the means of ministering to minds diseased, in the most approved manner known to science. The skill of the pathologist, with all the aids which science can furnish to help him in his work, has been taxed to the uttermost. Notwithstanding all this expenditure of money and all this devotion of science, the startling truth is forced upon us by unanswerable statistics, that in all the so-called civilized nations in the world insanity, not merely slight aberrations of intellect, but insanity in its most marked and distinct characteristics, calling for restraint, is steadily and rapidly on the increase.

In 1862, in England, Ireland and Scotland, the ratio of insane per 1,000 was 1.81. In 1872 the ration was 2.41, and in 1882, it was 2.84. Thus in two decades, notwithstanding the most elaborate and costly means provided in elegant hospitals, work rooms, and beautiful grounds for the cure of the insane, they have nearly doubled in number. The statistics in the United States during the past two decades, during which the greatest attention has been given to public buildings, shows a similar rate of increase in the insane.

If we inquire into the cause of these terrible facts, the answer comes back to us from tens of thousands of witnesses, from alms houses, and prisons, and hospitals and asylums—"Intemperance, depravity and hereditary transmission." Intemperance, not alone in drink, but in habits of living and thinking; depravity leading to crime, the outgrowth of physical disturbances, and hereditary transmission of mental and physical characteristics, and above all, the hereditary transmission of tastes, desires, and mental and physical peculiarities. The facts are too numerous to admit of a doubt that a large proportion of crime and the terrible increase of insanity are due to intemperance in living, in brain work, in home and social life, acting either directly or through coming generations in the form of hereditary transmissions; and what a terrible heritage is this polluted life-current, bearing for generations the deadly fruit of crime, of dissipation, and of inharmonious life and intellect; and what a coward is the man or woman who, for present gratification, will consent to taint the lives of generations yet unborn. Is there a remedy? Can the tide be rolled back by acts of legislation and costly prisons, and alms houses, and asylums? These all may have their uses, but back of all is prevention, to secure which the mind must be imbued with the principles of healthy living, and the fearful penalties following violations of nature's laws.

The great factors in this regeneration of the world, a regeneration which will empty our alms houses, our prisons and asylums, are first the home circle, in its healthy life and surroundings, in which the play of evil passions is restrained by precept and example, and acting upon it, and aiding it in its work, the medical and clerical professions, standing side by side and working hand in hand for the harmonious and healthy development of body and soul. Surely this is a mission which appeals to all schools and all creeds; the highest of all missions, for it goes to the very fountains of life and seeks to bring about not only a mental but a physical regeneration, making life happier here, and if there is an hereafter, blossom in brighter and more glorious beauty in that world now only seen with the eye of faith.

BIBLIOGRAPHICAL.

PREVENTATIVE MEDICINE. By Henry Ward Richardson, M.D., LL.D.; F.R.S. Philadelphia. Henry C. Lea's Son & Co., 1884.

This work, evidently intended for the general public, is also full of interest to the physician.

The author says the grand work of this era is to reconcile the two different schools; to systematize the preventative part of medical science so far as it is known; to bring the preventative part into entire accord with the remedial; to let the world at large understand the relationships which exist between the two parts, and by a sympathy of action, based upon knowledge, to enable every man and women to assist in the part which tends toward prevention.

The work is divided into three parts: Book I., Disease as unity with variety of phenomena. Book II., Acquired diseases. Book III., A practical summary of the origin, causes and prevention of diseases.

The book is elegantly written, in a clear and forcible manner, and is calculated to become popular among the intelligent, both of the general public and the profession.

HYGIENIC INSTITUTES, THE UTILITY OF THEIR WORK OF INVESTIGATION, AND THE NEED OF IT IN THIS COUNTRY.—Prof. George A. Smyth, in a reprint from the "Proceedings of the State Board of Health of Vermont," sketches briefly the development of hygiene as a science. He shows how important it has become, and advocates the establishment of institutes of hygiene in our medical colleges where the science, in all its branches, can be thoroughly taught, and where there shall be ample facilities for carrying on investigations.

The labors of Pettenkofer and Fodor are especially dwelt upon as giving an impetus to investigations into the telluric and atmospheric causes of epidemics and zymotic diseases. While their work has not been productive of much that science can claim as settled, it has suggested many lines of investigation, and has brought up many questions in sanitary science which are engaging scientific minds all over the world. This is certainly a great beginning. The one great study of germs is a science in itself, and can already lay claim to many brilliant results. No department of medicine, as the writer admits, is so fraught with difficulties, but they should be incentives to renewed and continued effort to make clear the way.

Based, as a science of hygiene is, upon physics, chemistry, and philosophy, its advance depends upon the advances made in these three sciences. The author's idea that the study of hygiene, as a separate and distinct science, should receive special attention in our medical schools, we do not think a practical one. Even granting a graded course of four years, the range of study is already so wide as to thoroughly absorb the student's time and attention. In the study of physics, chemistry and physiology, the application of these sciences to hygiene should be an important consideration, but the establishment of hygienic laboratories, with distinct professorships, does not come within the resources of a medical school, however well endowed. The government and great scientific schools can well give this branch that special study which the importance of the subject demands. The busy medical student and busier practitioner has little or no time for special work outside his immediate field. It comes more within the province of the sanitary engineer.

The essay is a well-written one, and is an admirable pleading for systematic study in this vitally important branch of science. E. R. C.

PRACTICAL MANUAL OF OBSTETRICS. By Dr. E. Verrier, Lecturer on Obstetrics in the Faculty of Medicine, Paris. Fourth edition, enlarged and revised, with one hundred and five illustrations. Edited by Edward L. Partridge, M.D. New York: Wm. Wood & Co., Publishers, 1884.

Dr. Verrier occupies so high a rank in his specialty that any work from his pen could hardly be otherwise than valuable. The present is a translation from the fourth Paris edition, and brings the subject fully up to the present. The book forms the April issue of Wood's Standard Library of Medical Authors.

ELEMENTARY PRINCIPLES OF ELECTRO-THERAPEUTICS. For the use of Physicans and Students. With 135 illustrations. Prepared by C. M. Haynes, M. D. Published by The McIntosh Galvanic and Faradic Battery Co., Chicago, Illinois.

This volume of 426 pages is the best work on the elementary principles of electricity, with which we are acquainted. It contains just what the student and the non-specialist in this department requires, and of course describes the various apparatus and appliances of the publishers, a most enterprising and reliable house. Our readers can make no mistake in ordering this book.

ALEVOLAR ABSCESS SIMULATING CHRONIC NASAL CATARRH.—A paper by Dr. John S. Marshall, on alveolar abscess opening into the antrum and nasal cavity, simulating chronic nasal catarrh (*Chicago Medical Journal and Examiner*, February, 1884), contains the following:

The causes of ozæna are syphilis, struma, lupus, ulceration, caries of the bones or cartilages, inflammation of the mucous membranes of the frontal and maxillary sinuses, and alveolar abscesses opening into the antrum of the nasal cavity direct.

The origin of certain forms of chronic nasal catarrh with fetid muco-purulent discharges is not always easy to locate, and especially is this true if the latter enumerated cause is the primary seat of trouble, and opens into the maxillary sinus. Abscesses forming at the apex of the roots of the superior incisor teeth, bicuspids or molars, may discharge into the cavities of the antrum or nasal fossa, and range from a slight nasal discharge to a most offensive ozæna, and it is not at all uncommon to find the roots of the superior molars penetrating the maxillary sinus. Less frequently, however, the bony plate over the apex of the incisors may likewise give way, especially over the apex of the central incisor; this may occur, and an offensive discharge into the nasal passages or posterior nares may so closely simulate chronic nasal catarrh as to entirely mislead the most careful diagnostician, whereas the real source of trouble may be a diseased tooth. During the past three years the writer has seen two patients who were suffering from this form of disease, who had been treated for months as cases of chronic nasal catarrh. The sphenoidal and frontal sinuses may each be the seat of this morbid condition, and fetid discharges from the nasal passages be the result, *i. e.*, of the accumulation of the morbid products in the accessory cavity, which becomes distended, and the overflow escapes from the little orifice into the nasal cavity. Text books allude to this disease in a mere paragraph sometimes, and the subject deserves more attention than has hitherto been given to it.

A MEMORIAL OF CONSTANTINE HERING.

This volume of 364 pages is divided as follows:—I. Biographical Sketches; II. Literary Life; III. In Memoriam. What grander or more enduring monument to any man, than

such a record! We hope a copy may reach the hand at least of every physician in the world, to inspire them to greater and more faithful work!

THE NORTH AMERICAN REVIEW *for June* opens with an article on "Harboring Conspiracy," by Prof. Henry Wade Rogers. Henry D. Lloyd shows how every branch of production is coming under the control of "Lords of Industry," corporations and monopolies. Elizabeth Stuart Phelps has an article marked by rare philosophic force upon the "Struggle for Immortality." Other articles are: "Sociological Fallacies," by Prof. W. G. Sumner; "The Rise and Fall of Authority," by President J. C. Welling; "Walt Whitman," by Walker Kennedy; and a symposium on "Expert Testimony," by Rossiter Johnson, Dr. W. W. Godding, T. O'Conor Sloane and Dr. Charles L. Dana.

CORRESPONDENCE.

OUR LONDON LETTER.

MESSRS. EDITORS:—The April meeting of the British Homœopathic Society was devoted to the discussion of the proposed revision of the Materia Medica. The urgent need of revision everyone is agreed about. The best method of conducting the revision is a different matter. However, after a free ventilation of views, the meeting decided on a certain plan, and commissioned Dr. Richard Hughes, who is to represent them at your coming congress, to explain the plan to those who are working in the same direction in America. I hope a complete understanding will be arrived at, so that all efforts may be directed to the same goal.

On the 5th of April the new wing of the Homœopathic Hospital, constructed chiefly to afford more accommodation for the nurses, was opened with a bazaar and conversazione. The opening ceremony was performed by Lady Ebury. The affair was a great success, and the numbers who came to inspect the hospital and partake of the varied entertainments provided for them, showed the great interest that is taken by the public in the institution and in homœopathy.

A hopeful sign of the times may be found in a delicious pair of paragraphs which appeared in the *Medical Times and Gazette* of April 12. It is a pity to spoil them by any comment, but it may just be noticed that the *Medical Times and Gazette* is a journal which piques itself on its literary style. I will transcribe the paragraph, merely supplying the heading:

THE AWAKENING CONSCIENCE.

"Mr. Bright has been ill, and is recovering under the innocent ministrations of a homœopath. A few months ago Sir W. Siemens was attended in his last moments by a homœopath. A few years ago, the unhappy circumstances attending the death of Lord Beaconsfield called general attention to the fact that for years the brilliant statesman had reposed his confidence in a homœopath. His able lieutenant, too, Earl Cairns, the papers tell us, is attended in his illness by a member of the same fraternity. Here we have four of the ablest men that this century has produced all giving in their adhesion to homœopathy—four men, too, of such diverse character that it is difficult to find in them a single point of resemblance except this, that they solemnly expressed their belief by most tangible tokens in one of the most baseless superstitions that has ever found a following. It is futile for the regular practitioner to console himself with a sneer, and explain the apparent infatuation of these celebrities on the principle *similes similibus curantur*.* Homœopathy is a superstition, and its followers are happy in holding tenets without a ray of evidence to support them. But it would be absurd to credit men like the late Lord Beaconsfield and Sir W. Siemens with a similar kink in their brains.

"In the old days it was the habit of orthodox believers to account for schism by assuming innate wickedness in the schismatics, or else to attribute it to the machinations of the evil one. Modern inquirers, with more reasonableness, prefer to explain it as the result of some imperfection in the orthodox creed or its ministers. So in this matter of homœopathy, is it not quite as reasonable to suppose that the defection of these four celebrities from medical orthodoxy is due to faults on the part of the orthodox, as that it is a result of the overwhelming attractions of the homœopathic belief, or of the imbecility of the schismatics? At any rate, we ought not to rest until we have assured ourselves that there is no fault in us. Can we assure ourselves that the trades-unionism which is too manifest in our ranks, that the sacrifice of patients' interests to an effete etiquette, that disloyalty to our consciences, and lapses into quackery, have had nothing to do with that disgust with the orthodox profession which is seen in the rebellion of such minds as those of Lord Beaconsfield, Sir W. Siemens and John Bright? If we can, well and good; if not, then it is high time that we mended our ways. Let us mend them!"

Your correspondent wrote a letter to the editor, endorsing the latter part of the above paragraph, but pointing out that there were several "rays of evidence" in support of homœopathy; and that it had positive as well as negative charms. This letter was not inserted.

I am glad to see, also, that the "British Medical" conscience is also awakening in another matter. I have before called your attention to the atrociously bad taste of the editors of the English journals, and the *British Medical Journal* in particular, in pandering to a prurient curiosity by publishing all the details of the illnesses of eminent persons, in flagrant violation of the confidence that should exist between doctor and patient. The climax has been reached quite recently when the journal in question, and others, thought it decent and respectable to give a clinical lecture on the "case" of the late Duke of Albany. This has at last aroused the association of which the *Journal* is the organ. The executive body of the British Medical Association have issued an order to their editor not to repeat the offense. He, with some show of reason, retorts that he has always relied on the good taste of the eminent practitioners *who have supplied to him the particulars* of the cases they were attending, the names of a number of these eminent practitioners appearing among the signatures to the order. It is a comfort to think that the consciences of the leading doctors of the British Medical Association, and the editor, have become aroused to a sense *each* of the *other's* fault—the doctors to the want of judgment on the part of the editor, and the editor to the want of taste on the part of the doctors—and that as a consequence, the evil is likely to be abated. It is to be hoped that doctors and editors may next become alive to a due sense of *their own* short-comings, not only in this particular, but in several others we could point out to them.

Yours fraternally,

JOHN H. CLARKE, M. D.

15 St. George's Terrace, Gloucester Road, London, S. W., April 28, 1884.

* The editor of the *Medical Times and Gazette* kindly explains in his next issue that there was a "goak" in this. He meant by the Latin, "Birds of a feather flock together," or "Fools go to fools to be cured." Subtle, wasn't it?

THE INTRODUCTION OF HOMŒOPATHY INTO THE ARMY AND NAVY.

REASONS FOR SEPARATING DYNAMIC FROM HOMŒOPATHIC TREATMENT.

MESSRS. EDITORS:—In the early part of July (1883) I received a letter from the Chairman of the Committee on Legistion of the American Institute of Homœopathy, soliciting my assistance in the work of securing "equal rights in the medical corps of the United States Army and of the Civil Service."

In my reply, I stated substantially that, while willing to put forth effort for the promotion of liberality in medicine, and for the elimination of errors of its principles or practice, I was not convinced that in this instance either of these results would follow the proposed canvass. On the contrary, actual governmental recognition of homœopathy, as at present represented, would, in all probability, perpetuate errors embodied in its tenets, and greatly increase the difficulties involved in their removal.

ENDORSEMENT OF OLD SCHOOL OPPOSITION TO DYNAMIC PRACTICE.

Old school physicians oppose homœopathy because they honestly believe, at least a portion of them, that thereby they are antagonizing error, and they are right in so doing. They are doing what they can to prevent the progress of error, both of theory and practice, by their sturdy refusal to affiliate with homœopathists so long as the name homœopathy is allowed to embrace both dynamic and homœopathic treatment. I am grateful to the old school for fearlessly declining, in the face of strong public sentiment in support of true homœopathy, to accept the false and unphilosophical absurdities which Hahnemann originated, and which are even now being promulgated in our school as sound and reasonable doctrines.

Old school physicians do not distinguish between dynamic and homœopathic practice. They ignorantly include both in their sweeping denunciations, because a certain class of leading members of our own school insist on blending these two distinct and incongruous methods.

I acknowledge that it is not creditable to the old school for having for the most part failed to discriminate between that which is true and reasonable, and that which is false and visionary, in the tenets of homœopathy; yet I am free to confess that we are not in a position to arraign them on the charge of lack of discernment, while we ourselves fail to perceive and eradicate errors the most glaring.

The fact is, as a school, we have undertaken too great a task. We have attempted to accomplish impossibilities. We have advanced hypotheses which, in their very elements are grossly unreasonable in theory, and which in practice, repeated in thousands of daily instances during a period of more than half a century, have been proved absolutely *false*. And yet, in the face of these facts, there are men in our school so completely blinded by zeal for high potencies as to be still earnestly endeavoring to force upon the profession at large an association involving *quasi* endorsement of that which is as abhorrent to reason as it is false in fact.

In harmony with the old school, I candidly express a dread of actively supporting an effort looking to the political advancement of homœopathy, when such aid involves even indirect endorsement of a medical error, than which none is more obnoxious, and under existing means for arriving at correct conclusions, is a thousand times more inexcusable than a belief in heathen mythology. I have no wish to encourage the blending of dynamic practice with homœopathy. *Dynamic practice, as at present represented in our school, is an outrage on well known philosophical principles, an insult to common sense, and an offense to common honesty.* Those who entertain this opinion cannot consistently enter upon an active canvass in behalf of the homœopathic school until this nondescript method of practice is formally separated from and declared to be non-homœopathic.

FAILURE OF THE LET-ALONE POLICY.

In all public matters, a general committee is supposed to represent and serve all parties equally and impartially. In this instance, however, the whole movement, if successful, will tend directly to the support of high potency interests. I do not believe that the low-potency party is, to any considerable extent, interested in this measure, or anxious for its success. It is safe to assume, therefore, that the high-potency party in our school, represented by the committee, is putting forth a great deal of energy in efforts not only to *coerce* the old school into an association with that which most allopaths believe to be radically wrong in principle and practice, but also to *force* low-potency homœopathists into a continued association with that which is as repugnant to them as it is to the old school. We low-potency homœopathists are just as heartily opposed to an association with dynamic practice, under an assumed name, as our old-school colleagues are. We are, however, still within the homœopathic fold, and prefer to remain, provided there is a reasonable prospect of rooting out dynamic practice. The old school, on the other hand, failing to discriminate between dynamic and homœopathic practice, is determined to keep both out of its fellowship as long as possible.

The committee of the Institute is apparently oblivious of the need of preparatory work within our own ranks. Let the committee first take the low-potency party in hand, and if need be apply for Congressional help to assist in *coercing* this faction, before attacking the old school. Perhaps, however, the committee, for prudential reasons, is disposed to begin with the easiest part of the work.

For many years in my earlier professional life, I labored, as earnestly as the committee of the Institute is now doing, for the same general purpose. Then the error of dynamization had not reached such extraordinary proportions. We then hoped and believed that if *let alone* it would ultimately die out. The *let-alone* policy, however, has utterly failed in this instance. Instead of diminishing in numbers of adherents and in the power of its influence, it is steadily increasing, and is even now being represented and taught, as correct homœopathic practice, in all our medical schools.

Of its falsity, from a homœopathic point of view, there is not the least doubt. It is plainly evident, therefore, that mild measures for its removal will not prove of any avail. No halfway treatment will meet the exegencies of this case. It is an evil which, like polygamy, can be dealt with successfully only by the most thorough and radical means, *extermination* or complete *separation*.

REASONS FOR SEPARATING DYNAMIC FROM HOMŒOPATHIC PRACTICE.

We urge the formal separation of homœopathic from dynamic practice for two principal reasons. In the first place, the theory on which dynamic preparations are made is untenable, contradictory, unintelligible to the human intellect, and grossly inconsistent with any of the known principles of science or physics.

In the second place, the results of thorough clinical experience of the ablest practitioners and ripest scholars in our school, show conclusively that dynamic practice is non-homœopathic. We *know*, because we have instituted trials without

number, that dynamic practice has no relevancy whatever to the proper application to the law of similars.

The following truthful and forcible words of the venerable Dr. J. P. Dake, accurately express the convictions of low-potency homœopathists on this subject:

"Not one of the cases reported in journals as cured with any high dilutions, furnish a particle of satisfactory proof that there is medicinal power in attenuations above the thirtieth decimal." *

Also, in the words of Dr. J. H. Clemmer:

"High potencies are *false* in preparation, *false* in theory, and *false* in practice. High potentists, in urging their claims in conventions and journals thereby promulgate *error*, and embarrass the truth of homœopathy." †

We are acting *falsely* toward true homœopathy, *falsely* to the medical profession, and *falsely* to the interests of humanity, by representing dynamic practice to be homœopathic.

If we cannot put forth effort in behalf of true homœopathy without aiding dynamic practice also, we prefer waiting until the desired separation is brought about. We will not compromise our position before the public as medical men by even indirectly endorsing, medically speaking, this "sum of all villainies."

The representatives of the high-potency party who are attempting to secure the introduction of homœopathy into the army, are endeavoring to slur over this monstrous and inexcusable error. Some of them, no doubt, believe that homœopathic and dynamic practice are essentially identical; or, if they make any distinctions, ignore them, deeming the differences those of degree rather than of quality. Others entertain the singular fancy that a discussion of the question at the present time would, in some unexplained manner, prove prejudicial to the interests of the homœopathic school.

On these points we radically differ. We take the ground that dynamic practice, from the homœopathic point of view, embraces radical error. This assumption being admitted, it is the first duty of homœopathists to begin the work of reform within their own ranks. First clean our own Augean stables; remove the beam from our own eyes; make homœopathy worthy the confidence and support of the whole medical profession, by the removal of this radical defect; and then, but not till then, let the aid of honest homœopathists be solicited. This once accomplished, governmental recognition of homœopathy and its representation in the army would be secured without special effort on our part.

Objection to this proposition is made on the ground that the old school has always opposed homœopathy as a whole, no allusion to dynamic practice as distinctive from homœopathic ever having been offered. Precisely. But have we, in our journals or otherwise made such a distinction? Have we not been derelict in having failed hitherto to dissociate these two radically different methods? In fact, are we not still, as a school, endeavoring to impart respectability, character, and, tentatively at least, a scientific standing to dynamic practice, by refusing to distinguish it from that which is truly homœopathic?

HOMŒOPATHY AND THE HOMŒOPATHIC ACTION OF REMEDIES LIMITED TO THE USE OF LOW POTENCIES.

The chairman of the committee, Dr. Morgan, in a letter dated July 14, states:

"You heard me (at the meeting of the Institute, 1883) defend Falligant's homœopathicity in the use of twenty-grain doses of *quinine*. Who shall chide me for defending also the homœopathicity of the twentieth or the thirtieth potency?"

To which I reply: We do—low-potency homœopathists do—because, by so doing, you go outside of homœopathy. We *know* by our own experience, by analogy and true induction, that the proper application of the homœopathic rule or principle is fixed by natural limits, and that its boundaries are far short of the measure adopted by most high-potency practitioners, if, indeed, they have fixed any at all.

The results of all scientific investigations, notably those of trials by Prof. J. Edwards Smith, reported at the last meeting of the Institute (1883), the proof afforded by mathematical demonstration; and the conclusive evidence furnished by the Milwaukee test, all clearly establish the fact that high potencies of any remedy have never been made, and also the impossibility of ever making them.

Hahnemann substantially admitted the impossibility of carrying the divisibility of matter beyond certain natural limits, and his recognition of that fact *marked the point of his divergence from homœopathy*. In the foot-note to paragraph 270 of the Organon, Hahnemann states:

"Actual dilutions are almost wholly confined to sapid and colored objects. A solution of salt or bitter substances becomes always more tasteless the more water is mixed with it, and at length loses almost all taste, though we may shake it as much as we please. In like manner a solution of a colored substance becomes, by the admixture of more and more water, at last almost quite colorless, and gains no increase of color by any imaginable shaking. These are and continue to be the true attenuations or dilutions, *but are not dynamizations*."

Hahnemann evidently intended to divest his system of therapeutics of the least shade of materialism, and in so doing separated it from homœopathy, *and well nigh sacrificed the latter on the altar of dynamization*.

The question is sometimes asked: Wherein does dynamic practice differ from homœopathic? The totality of the symptoms being the guide to the selection of appropriate remedies in both methods, why is it that one is considered homœopathic and the other non-homœopathic? The answer is, one method involves the use of material elements, and cures by virtue of force derived from the actual presence of those elements, which long experience has demonstrated is essential. The other method, in the absence of all material substance, acts by virtue of forces alone, which experience plainly demonstrates have no necessary relation whatever to the law of similars, and operates on principles of the laws of which we are still profoundly ignorant.

The theory that forces are developed by agitation of the drug in contact with an inert medium, and are preserved by the inert medium long after the limit of the material presence of the original drug has been exceeded, is not proved by clinical experience. The cures effected by dynamized remedies are purely psychological, not homœopathic. In these dynamic cases the careful selection of the proper remedy, according to the totality of the symptoms, has no other influence whatever other than to contribute somewhat to psychological forces, which are by no means necessarily homœopathic.

REASONS WHY THE TWELFTH POTENCY HAS BEEN SELECTED AS THE NATURAL LIMIT OF HOMŒOPATHIC ACTION.

Some of the advocates of dynamic practice express, without the slightest hesitation, their belief in the homœopathicity of high potencies. They repeatedly relate their experiences, and describe the process by which they were led, step by step, from the use of the low to the high, and even the highest known preparations. And they state, with the utmost assurance, that if homœopathists were close observers of symptoms, or were ready to exercise the requisite degree of confidence in the faithful application of the law of cure, and were less timid in the use of these preparations, a far greater proportion would avail themselves of the advantages to be gained thereby.

* *Medical Counselor*, September, 1881, page 225.

† *United States Investigator*, August, 1882, page 183.

On the other hand, there are many practitioners in our school who, in the earlier years of their medical career, were equally sanguine regarding the homœopathic application of high potencies, but now, enlightened by more careful and pains-taking observations, have come to the firm conviction that the cures alleged to have been made by these mythical potencies are a result of forces other than those having any direct or indirect connection with the proper application of the law of similars; hence cannot fairly be considered homœopathic.

While low-potency homœopathists have no desire to exclude the results of honest and trust-worthy investigation, they are unwilling, in view of the doubtful character of high potency practice, and of the great volume of reliable evidence against its homœopathicity, wrought out by the experience of the wisest and ablest members of our school, to assume that cures ought, under any circumstances, to be considered homœopathic that are brought about by any potencies in which the presence of material elements of the remedy employed are not susceptible of scientific demonstration. In other words, they are willing to go as far as science goes; holding it absolutely necessary, in order to secure permanence, stability, and a reliable foundation for our belief in homœopathic principles, that there must be a natural limit to the boundaries of the material presence of the drug employed.

Hence by common consent, without apparent concerted action, the *twelfth* potency has been selected as the point beyond which it is not wise or expedient to claim homœopathic agency.

The results of scientific research show, that chemistry is unable to furnish proof of the material presence of a drug beyond the *third* potency; the spectroscope none beyond the *fifth;* the microscope none beyond the *seventh;** and the theory of molecular magnitudes (mathematical demonstration,) none beyond the *eleventh.*†

The evidence afforded by science therefore, demonstrates the *actual impossibility* of carrying reliable homœopathic preparations beyond the *twelfth* potency.

For these reasons we refuse to accept the results of the experiences of those who use high potencies; and in proportion as they endeavor to force us to give even indirect endorsement of this obnoxious mode of treatment, may they expect lack of active support on our part of the political measures they are attempting to promote.

We counsel them to first lay their own hands on this source of all our strifes and divisions; remove this enemy of the best system of treatment ever discovered; separate this chaff from the true seed; place it in a department by itself, and give it a distinctively non-homœopathic name; confine true homœopathy to limits which rational and liberal physicians of all schools can honestly and intelligently approve, and depend upon it, unity of purpose and freedom of opinion and action will speedily follow; the intense opposition to homœopathy will pass away; the divisions now vexing contending factions, on account of ethical questions, will lose their principal elements of support; and the political preferment of the members of any one class of practitioners, on account of therapeutic belief, will be known only in history.

It will be observed, that in the foregoing paper I have emphasized the importance, indeed the necessity of separating dynamic from homœopathic practice. The plan proposed for accomplishing this desirable end, is the formal adoption by several of the State Homœopathic Medical Societies, and the American Institute, of a resolution declaring that, in the opinion of the members, the evidence of the homœopathicity of potencies above the twelfth, is so slight as to render it inexpedient to admit the use of the term homœopathic, to any of the higher attenuations; also, in order to prevent misunderstanding, to specify all reputed cures by potencies higher than the twelfth by the appropriate name *dynamic.*

This prudent course is proposed in the interests of harmony, as the best one yet offered for ultimately removing the odium which necessarily attaches to high-potency practice, falsely called homœopathic.

Those who desire to continue to report alleged cures by means of high potencies, will have unrestrained liberty to do so, the only difference being that all such cases will be named dynamic.

It would appear that the advocates of high potencies have no occasion for umbrage, and no good reason for opposing so reasonable a proposition.

Moreover humanitarian interests require such action on the part of our school, because these interests will be greatly promoted by the rapid diffusion of homœopathic truths, which the general adoption of homœopathic principles in practice by the whole profession would provide for. This desirable end however, cannot be brought about while non-homœpathic high-potency practice remains an insuperable barrier thereto.

The publication of this paper, written last September, has been deferred until assurances were received from a reliable source, that all reasonable hope is past of securing the desired Congressional legislation. H. M. PAINE.

* *The Logical Basis of the High-Potency Question*, by Dr. Samuel Potter.

† *Medical Record*, Nov. 1878, p. 432.

OBITUARY.

DR. SAMUEL D. GROSS, the eminent surgeon, died in Philadelphia, May 6, last.

Dr. Gross was born on July 8, 1805, at Easton, Penn. He studied medicine under Dr. George McClellan, and graduated in the Jefferson Medical College, Philadelphia, in 1828. In 1835 he was elected Professor of Pathological Anatomy in the Medical Department of a Cincinnati college, and in 1840 to the professorship of surgery in the University of Louisville. In 1850 he became Dr. Mott's successor in the University of New York. Later he returned to Louisville, but in 1856 he succeeded Dr. Mütter in the Jefferson Medical College, where he labored for twenty-six years. Shortly after settling in Philadelphia he founded the Philadelphia Pathological Society, of which he was the first President. In 1867 he was elected President of the American Medical Association. Four years later he was chosen Chairman of the Teachers' Medical Convention, at Washington. In June of the same year he was elected President of the Pennsylvania Medical Society, and in 1872 he went to Europe. While Dr. Gross was in England the University of Oxford held its one thousandth convention, and as a feature of that occasion, gracefully complimented the American faculty of medicine by conferring upon its distinguished representative the honorary degree of D. C. L. The University of Cambridge, in 1880, followed the example of its sister institution by conferring upon Dr. Gross the degree of LL. D., which he had previously received from Jefferson College, and at the recent bi-centennial of the University of Edinburgh he was granted the honorary degree of LL. D. In September, 1876, Dr. Gross was elected to the Presidency of the International Medical Congress, which met in Philadelphia. Four years afterward he founded the American Surgical Association, which met at Washington, and of which he was President. In 1882 Dr. Gross organized the American Academy of Surgery; but in the same year he resigned his professorship

at Jefferson College. Dr. Gross was one of the founders and early presidents of the Kentucky State Medical Society, and had been elected an honorary member of the Royal and National Medical Societies of England, Scotland, Austria, Norway, and other European States. Dr. Gross began early in life to contribute to the medical literature of the country. He was the author of several well-known professional works. One of these, his "System of Surgery," reached its fifth edition in 1872. It is a work in two volumes of about 2,500 closely printed and well illustrated pages, and is a cyclopædia of surgery. It has been translated into several languages.

SOCIETY REPORTS.

AMERICAN MEDICAL ASSOCIATION.

THE American Medical Association held its annual session in Washington, D. C., on May 6, with a large attendance, the President, Dr. Austin Flint, in the chair. Dr. Flint delivered a long and interesting address, in which he spoke hopefully of the progress of medicine as follows:

"For the past quarter of a century, histological and clinical studies have tended to develop more and more our knowledge of the existence of specific agents in the causation of diseases. That, as regards certain diseases, these specific agents are micro-organisms, has been demonstrated. The latest discovery in this direction is that of the bacillus tuberculosis, a discovery which is the leading topic in medical literature at the present time. Recent trustworthy researches go far toward demonstrating the existence of specific organisms in pneumonia, typhoid fever, malarial fever, and epidemic cholera; and, reasoning by analogy, it is a logical conclusion that ere long a host of diseases will be proven to be parasitic." Speaking of the preliminary requisites for the study of medicine, which he declared to be the most important of the means for elevating the standard of medical education, Dr. Flint approved the recommendations of the Committee of 1846, including a certain knowledge of Latin and Greek.

It is well known that Dr. Flint has been a strong advocate of the Old Code, which precludes consultation with such as it chooses to term irregular; now he declares, however, that there are really two codes—one the Old Code, the other the "higher law of philanthropy," and that under certain circumstances the higher law must be obeyed, notwithstanding the Code, while under other circumstances the dictates of humanity themselves, apart from any code, would forbid a consultation with one who is not a "fit associate." But there seems to be nothing in the Code to determine what these circumstances are; nor when the higher law is to be substituted for the Code; nor how mere consultation, even with an unfit associate, for the purpose of finding out what he is about, and seeing whether the patient cannot be got to take better advice, can possibly conflict with the duties of humanity. Dr. Flint seems to leave the whole matter to the judgment of the physician, and completely to emasculate the Old Code.

The President requested that the International Medical Congress be invited to meet in this country in 1887, and the matter was referred to a committee, as was also the subject of Medical Ethics.

Resolutions were adopted forming a Congressional bill in regard to sanitary service on board trans-oceanic vessels.

Dr. John V. Shoemaker of the Section "in Medicine," after a few preliminary remarks on the difficulty of his subject, in consequence of the new theories constantly advanced, said that in the field of pathology and pathological research the study of the infinitesimal had attracted great attention; and of the subjects prominently brought to the attention of the profession and exciting universal interest, more than any other, was that of the bacillus theory and the contagious character of tuberculosis. While the presence of micro-organisms in other diseases was being investigated and studied extensively, there was none which had so great a bearing and caused so much comment as this one. Only a few years ago Koch stood almost alone in its advocacy. Now there were numbers of unbiased observers who confirmed his famous discovery. Foremost among these was Watson Cheyne, who visited Koch's laboratory for the express purpose of investigating the subject. His report fully confirmed the facts set forth by the great investigator, besides demonstrating the constant occurrence of the bacillus in all tubercular structures, as well as the relative position of the parasitic organism to cell-structure. Similar confirmatory evidence had been produced by Prudden, Derschfeld, West, Gibbs, Heron, Wipham, Meissen, and others, from a clinical view of the constant presence of the bacillus in the sputa of phthisis; while Charnley Smith had even ingeniously demonstrated its presence in the expiratory air of consumptives by filtering it through gun-cotton, dissolving the latter in ether, and then fixing it on microscopical slides for inspection.

Dr. Austin Flint, Sr., accepted the new theory as well as the ætiological character of this micro-organism when added to predisposition, leaving the subject of contagion dependent upon the causative element combined with the favorable soil for its propagation, ascribing the usual absence of contagion to a lack of predisposition; and considered the presence of bacillus as one of the most essential elements for the diagnosis of phthisis.

Speaking of typhoid fever, he inferred that the treatment by cold baths, of all antipyretics, was now thought to be the most serviceable, if we could trust to the statistics of recent investigators, as well as the thorough researches of Sassetzky in the analyses of the excreta. Alluding to renal diseases, he asserted that albuminuria had long been the subject of scientific inquiry, being considered more and more of nerve origin. Its close relation to diabetes, with mutual interchange in certain affections, had brought forward the proposition that both albuminuria and glycosuria might be produced by irritation of certain parts of the floor of the fourth ventricle. The hypertrophy of the muscular coat of the arterioles and the increased tension of the vascular system were also asserted to be due to irritation of the vaso-motor centres of the medulla. The latter, especially, had proved valuable in modifying the treatment of albuminuria. That the toxic influence of certain substances, as well as severe febrile affections, was productive of albuminuria was well known, and a recent instance had been cited where it occurred after varicella. Peptonuria had been investigated and found to co-exist with suppuration from various causes, or with large exudations. Speaking of the disease known as actinomycosis, and as being peculiar to horses and cattle, he stated that it had been exhibited by Treves in a man whom he brought before the London Pathological Society. All stages of the disease, from minute solid growths to large suppurating and sloughing masses, were present.

As to therapeutics, while in past years it had been ignored to a great extent by many physicians and scientists, it had undoubtedly now assumed new features entitling it to a prominent position. He gave a list of some of the chief remedies which had found approval during the past year, such as *kairine* among the antipyretics; *paraldehyde*; the *abrus precatorius*, the jequirity bean of Brazil; the *salts of nickel*, and especially its *bromide*; *bismuth salicylate*; *nitro-glycerine*;

the *chloride of gold* and *sodium*, etc.; in connection with them mentioning the diseases to which they were applicable. Treating of antiseptic inhalations, he thought that the vast research in the field for micro-organisms as causative elements of disease, and the discoveries made therein, had given a new impetus to antiseptic treatment in every branch. Antiseptic inhalations for pulmonary disease had proved of value, whether the germ theory was sustained or not.

A standing committee, composed of our most eminent physiologists, was appointed to watch attempts at legislation restricting vivisection unwisely.

A committee was appointed to urge upon Congress the importance of suitable appropriations to be expended under the direction of the National Board of Health.

It was reported that the *Journal* of the Association had successfully passed its first year of publication, and Dr Davis, the editor, announced that he could not serve in that capacity after the present year.

Dr. Henry F. Campbell, of Georgia, was elected President, and New Orleans selected as the place of next meeting.

Three hundred dollars was appropriated for the purpose of carrying on the work of the Committee on "the Collective Investigation of Disease."

From the reports at hand, we should judge that the people of Washington, including President Arthur, did their utmost to make the occasion enjoyable, by furnishing excursions, receptions, etc., to this undoubtedly the largest meeting the Association ever held.

WOMEN IN MEDICINE.—Recently, at the Philadelphia Hospital, some thoughtless young fellows were amusing themselves at the expense of the female students in attendance, when Miss A. M. Fielde, one of their number—one of the most widely-known and eminent missionaries in China—arose, on the inspiration of the moment, and amidst instant and most respectful silence, spoke as follows: "Gentlemen, I have been for eighteen years a missionary in China. The Chinese have no medical science, and superstitious rites are chiefly relied on in the treatment of disease. *All* the people are in need of medical aid, but the *women* are the *neediest*. A Chinese woman would, under no circumstances, go to a male physician for the treatment of any disease peculiar to her sex. She would be prevented by her own womanly delicacy, and by all the notions of modesty held by those around her. She would suffer life-long agony rather than violate her sense of propriety. Her father, her brothers, and her husband would even let her die rather than allow her to be treated by a male physician. Full of sorrow for the sufferings of these women, I have been looking in Christian America to see what hope of health for them might be here. I have been glad to find that in some of our great medical schools earnest and self-sacrificing women are fitting themselves for a work of mercy in Asia and other lands. Unless such women learn to do such work well, there is no physical salvation for those afflicted ones. And in behalf of those women, who have no medical care while they so sorely need it, I ask of you the courtesy of gentlemen toward ladies who are studying medicine in Philadelphia." The whole class at once applauded, and a gentlemanly young student arose and informed the ladies that hereafter they would not be molested.

CYANIDE OF MERCURY is again coming forward as a remedy for diphtheria. It is given to older children and adults in doses of one-sixtieth to one-eightieth of a grain every hour or oftener day and night, and to young children in smaller doses. It is most conveniently given in solution.

MISCELLANY.

—A Japanese student has been appointed assistant to the Professor of Anatomy at Berlin.

—Dr. Thomas R. Pooley has opened, at 107 Madison Avenue, a private hospital for eye and ear diseases.

—Dr. J. C. Peters states some interesting facts showing that scarlet fever has its origin among horses.

—It gives an idea of how London grows, that in a single week in February the births exceeded the deaths by 1,215. The death rate that week was only 1.95 per 1,000.

—Thunder storms cause milk and fermented liquors to sour by the deposition of dust, and therefore of bacteria with it, due to the disturbed electrical condition of the atmosphere.

—Dr. O. E. Janney, Secretary, reports that the Maryland Institute recently held a most interesting meeting, the sessions covering two days. The President, Dr. E. C. Price, delivered an address on the occasion.

—In condensing the vapors of a bread oven there was found in the resulting liquid 1.6 per cent. by volume of alcohol, and 0.06 per cent. by weight of acetic acid, and small quantities of ferric acetate and ammonia.

—Human skin and that of young rabbits has been successfully applied in small pieces to large healing surfaces in wounds. Dr. Wilson, however, in the *Medical News*, claims to have obtained much better results from the use of the internal membrane of hens' eggs. The egg should be fresh and warm.

—The American Institute will meet at Deer Park, Md., on June 17th, and continue in session five days. The Baltimore and Ohio Railroad Company will lend its aid to make the occasion enjoyable, and will furnish a ticket for the round trip from New York at $12.35, good going June 14, 15 and 16, and returning from Deer Park for a continuous passage, on or before June 21.

—The lay-public is fast coming to an appreciation of the fact, that too many doctors are being graduated, and we hope the influence may yet be felt in legislation, which will not only decrease the number, but improve the quality. The *N. Y. Tribune* thus views the subject:

"Somebody once posed the world by inquiring, what became of all the old pins, but an almost equally difficult problem is, what becomes of all the new doctors. Here are medical colleges turning them out in batches perennially, a hundred now, and fifty the next time, and so on without ceasing, and they seem somehow to be absorbed into the community and disppear; yet it must be concluded that few of them fail to make some kind of a living. But how do they do it? The mortality among doctors certainly cannot be so great as to provide continual vacancies for the newly-fledged practitioners. The healthiness of the rural districts demonstrates that no abnormal eruption of doctors has appeared there. In the cities the competition has long been so keen that few newcomers can shoulder their way in under any circumstances. Where, then, does this great army of doctors go? That they do not all find practice is conclusively proved by the fact that the rate of mortality over the whole country declines rather than increases every decade. Some of them may be accounted for by the rise of new towns in the far West, but the fate of the majority remains one of those inscrutable mysteries of which so many of what seem common affairs are nevertheless full."

XUM

—Among the candidates for the *externat* of the Paris Hospitals, Mdlle. Mathieu, a negress, has competed with success.

—Four grains *chloral hydrate* to three ounces of urine will preserve the latter for a month for microscopical purposes, if kept in a cool place.

—There are 140,000 homes in France without a window, with no flooring but the soil, and where families and brute beasts are herded together in common.

—Mrs. Catherine Baker, of Taylorsville, Va., is 99 years of age, and attributes her longevity to her use of strong coffee, of which she drinks a dozen cups daily.

—One of the oldest and wisest of the superintendents was once asked to give a condensed statement of the causes of insanity. He replied: I should put it all in one word, *excess.*

—The popular beverage of the future is said to be milk, charged with carbonic acid gas, and bottled in the usual way. It is claimed that milk, thus carbonated, will keep for an indefinite period.

—Blindness in England has steadily decreased for the last thirty years, owning, it is thought, to the improvement of the opticians, and the almost complete extinction of smallpox among children.

—M. Martineau has observed that in a monkey inoculated with syphilis, who had already presented secondary symptoms and a syphilitic ulcer of the palate, a third manifestation has appeared—syphilitic epilepsy.

—Mr. W. Beatty, in *Brit. Med. Jour.*, notes that he has had great success in the treatment of nævi by the local application of the ordinary *liquor arsenicalis*, with which the nævus is painted night and morning until ulceration takes place.

—Dr. Arthur L. Root, late of the House Staff of the Ward's Island Hospital, has located in "The Fulton," 83d Street and 9th Avenue, New York; and Dr. Chester A. Mayer has entered into co-partnership with Dr. W. L. Breyfogle, of Louisville, Kentucky.

—The *Lancet* informs a correspondent that the possibility, nay, the certainty, in many cases, of flies being a medium of infection, especially in warm climates, has been repeatedly pointed out, though, perhaps, the fact is not sufficiently borne in mind.

—A *Lancet* correspondent quotes from the *Hygiène Pratique*, that boots and shoes may be rendered water-proof by soaking them for some hours in thick soap-water. The compound penetrates the leather, and there forms a fatty acid which is impervious to water.

—The Indiana Institute recently held its 18th annual session in Indianapolis. The President, Dr. Moses T. Runnels, delivered an able address, and many interesting papers with much valuable discussion followed. The meeting was said to be one of the best in the annals of the Society.

—Dr. L. W. Flagg died at Yonkers, N. Y., May 15th, at the age of 67. He was born at West Hartford, Ct., Feb. 14, 1817, graduated at Yale College in 1839, and was a student with the late Dr. Willard Parker. He was one of the best-known and largest practitioners in Westchester County.

—The power of the Niagara University to confer the degree in medicine having been called in question, a bill has passed the legislature, and been signed by the governor, specifically giving the corporation that power. The bill provides that candidates for the degree must have attended three courses of lectures.

—The new building of the Medical Department, University of Vermont, erected by John P. Howard, at a cost of $30,000, was dedicated March 6. The building was presented to the University in behalf of Mr. Howard by Henry Ballard, and was accepted in an address by President Buckham. The Medical class numbers 200 students.

—A Cincinnati doctor of large practice says the profession is poor, very poor, and physicians who talk of incomes of $20,000 to $25,000 a year only talk for effect. "I earn from $12,000 to $15,000, and think myself well off if I collect one-third of it. I keep a carriage, to be sure, and a colored man with very bright buttons, but it is often that I have not a dollar in my pocket to pay for a cab if my own equipage should happen to break down a couple of miles away from home."

—Prevention of summer complaint in children, according to Dr. David Little, of Rochester, N. Y., can be attained by giving them plenty of water. He had been physician to a children's orphan asylum for twenty-two years, and every summer there had been enteric disease. In the summer of 1882 he ordered that the infants be fed only every three or four hours, and that water be given if the child cried in the interval. There was not a single case of enteric disease in the institution during that season.

—The *Æsculapian* says: "It is generally admitted that the word 'charlatan' is derived from the Italian word *ciarlare*, to chatter, to prate. It appears that up to the sixteenth and seventeenth centuries the word was pronounced 'chiarlatan. A German journal gives its etymology differently: A Paris physician, Latan, went through the town in a chariot containing his drugs, and in which he examined his patients. This caused the expression 'Voila le char de Latan,' which was subsequently corrupted into 'charlatan.'"

—At the last annual session of the Medical and Chirurgical Society of Maryland, Dr. Charles G. Hill read a paper entitled "The common sassafras a potent drug and a dangerous narcotic." Dr. Hill's attention was called to the narcotic properties of this supposed harmless agent, by a case in which a boy took "two large swallows" from a bottle of the oil of sassafras, under the impression that it was good for an eruption from which he suffered. Coma supervened resembling that in poisoning by opium, except that the pulse was rapid and pupils normal. Prompt emesis removed the remaining oil from his stomach and consciousness soon returned. Acting on this suggestion, the author had made experiments with the oil of sassafras upon mice, cats, and dogs. In the mouse it caused stiffness, convulsions, and death. In the cat and dog insensibility and paralysis were noted.

—The gift of Mr. Andrew Carnegie to the Bellevue Hospital Medical College is notable, not more from its generous proportions, than for the wisdom which has dictated the conditions governing its application. It has been Mr. Carnegie's purpose to found, here in New York, a school and laboratory for those profounder researches of medical science upon which its progress depends. American students will not be slow to recognize the beneficence of a gift which supplies in their own country facilities for investigation in physiology and pathology, now only to be found at great expense of time and money abroad. Though the building to be erected through the munificence of Mr. Carnegie will be a part of Bellevue, its opportunities will not be restricted to students of that institution. This is a liberal and judicious provision. Microscopic research, if carried beyond a mere beginning, is naturally supplementary to the work done in medical schools.